AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

*Part II begins on page 4823*

PART I

# FEDERAL REGISTER

VOLUME 23 NUMBER 127

*Washington, Saturday, June 28, 1958*

## TITLE 6—AGRICULTURAL CREDIT

### Chapter IV—Commodity Stabilization Service and Commodity Credit Corporation, Department of Agriculture

**Subchapter B—Loans, Purchases, and Other Operations**

[1958 C. C. C. Wheat Distress Loan Program Bulletin 1]

### PART 473—SPECIAL PRICE SUPPORT PROGRAM

**SUBPART—1958 CROP WHEAT DISTRESS LOAN PROGRAM**

A price support program has been announced for the 1958 crop of wheat and the applicable regulations (23 F. R. 2663 and 3485) have been issued by the Commodity Credit Corporation. This bulletin contains the regulations applicable to the 1958 Crop Wheat Distress Loan Program through which, as an adjunct to the price support program, recourse loans on wheat are made available through the Commodity Credit Corporation and the Commodity Stabilization Service (hereinafter referred to in this bulletin as CCC and CSS, respectively). This program is designed to assist producers in holding their wheat until they can qualify for nonrecourse loans under the price support program.

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AUTHORITY: §§ 473.401 to 473.421 issued under sec. 4, 62 Stat. 1070, as amended; 15 U. S. C. 714b. Interpret or apply sec. 5, 62 Stat. 1072, secs. 101, 401, 63 Stat. 1051, 1054; 15 U. S. C. 714c, 7 U. S. C. 1441, 1421.

*This issue includes two parts bound together. Part II contains miscellaneous amendments respecting dangerous cargoes, Title 46, Chapter I.*

§ 473.401 *Administration.* The program to which this subpart applies will be administered by CSS under the general direction and supervision of the Executive Vice President, CCC, and, in the field will be carried out by Agricultural Stabilization and Conservation State Committees and Agricultural Stabilization and Conservation County Committees (hereinafter called State and county committees) and CSS commodity offices. All documents will be approved by the county office manager, or other employee of the county office designated by him to act in his behalf. Such designations shall be on file in the county office. Copies of all such documents shall be retained in the county office. County office managers, State and county committees, and CSS commodity offices do not have authority to modify or waive any of the provisions of this subpart or any amendments or supplements hereto.

§ 473.402 *Availability of loans*—(a) *Approved forms.* Loans will be evidenced by promissory notes and loan agreements and secured by chattel mortgages.

(b) *Area.* Distress loans are authorized on wheat (1) stored on the ground, or (2) stored in temporary facilities in areas in any State where the State Committee determines that conditions are such that the wheat can be so stored temporarily. In areas where it is not feasible to store wheat on the ground the State Committee may authorize distress loans on wheat stored in temporary facilities only.

(c) *Where to apply.* Application for a distress loan should be made at the office of the county committee which keeps the farm program records for the farm.

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Published daily, except Sundays, Mondays, and days following official Federal holidays, by the Federal Register Division, National Archives and Records Service, General Services Administration, pursuant to the authority contained in the Federal Register Act, approved July 26, 1935 (49 Stat. 500, as amended; 44 U. S. C., ch. 8B), under regulations prescribed by the Administrative Committee of the Federal Register, approved by the President. Distribution is made only by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

The FEDERAL REGISTER will be furnished by mail to subscribers, free of postage, for $1.50 per month or $15.00 per year, payable in advance. The charge for individual copies (minimum 15 cents) varies in proportion to the size of the issue. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office, Washington 25, D. C.

The regulatory material appearing herein is keyed to the CODE OF FEDERAL REGULATIONS, which is published, under 50 titles, pursuant to section 11 of the Federal Register Act, as amended August 5, 1953. The CODE OF FEDERAL REGULATIONS is sold by the Superintendent of Documents. Prices of books and pocket supplements vary.

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Order from Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

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(d) *When to apply.* Loans will be available from the date the program is announced for the area by the State Committee. The final date of availability of loans shall be 30 calendar days after the date the program is announced for the area, or 30 calendar days after the producer completed harvest of the wheat tendered for loan, whichever is later, and the applicable loan documents must be signed by the producer and delivered to the office of the county committee not later than the final date of availability of loans. The applicable loan documents are the Producer's Note and Supplemental Loan Agreement, the Supplemental Loan Agreement—Distress Loans, and the Commodity Chattel Mortgage. It shall be the responsibility of the producer to ascertain from the county office whether the program has been announced for the area and the date that the program was announced.

§ 473.403 *Disbursement of loans.* Disbursement of loans will be made to producers by county offices by means of sight drafts drawn on CCC. No disbursements shall be made later than 15 days after the final date of availability of loans unless authorized by the Executive Vice President, CCC. The drawing of a sight draft shall constitute disbursement. Disbursement of the loan proceeds shall not be made unless the wheat is in existence and in good condition. If the wheat was not in existence and in good condition at the time of disbursement, the proceeds shall be promptly refunded by the producer. In the event the amount disbursed exceeds the amount authorized under this subpart, the producer shall be personally liable for repayment of the amount of such excess.

§ 473.404 *Eligible producer.* An eligible producer shall be an individual, partnership, association, corporation, estate, trust, or other business enterprise, or legal entity, and whenever applicable, a State, political subdivision of a State, or any agency thereof, producing wheat in 1958 as landowner, landlord, tenant, or sharecropper: *Provided*, That a producer shall not be an eligible producer unless he is in compliance with the requirements for eligibility for price support prescribed in §§ 421.3026 to 421.3031 of this chapter, and any amendments thereto. Two or more eligible producers may obtain a joint loan on eligible wheat harvested by them and stored commingled. In the case of joint loans, each person signing the note shall be held jointly and severally responsible for the loan. Where the county office has experienced difficulties in settling farm-storage loans with a producer, the county committee shall determine he is not eligible for a distress loan. Executors, administrators, trustees or receivers who represent an eligible producer or his estate may qualify for a loan: *Provided*, That the loan documents executed by them are legally valid.

§ 473.405 *Eligible wheat.* The conditions of eligibility for wheat shall be the same as under the 1958-crop wheat price support program (§ 421.3038 of this chapter), as amended, except that there shall be no requirement for storing wheat for a specified period prior to inspection.

§ 473.406 *Storage.* (a) Temporary storage facilities shall be facilities which in the opinion of the county committee, are suitable for the temporary storage of wheat.

(b) Wheat piled on the ground shall be protected from animals and shall be piled on ground which will afford maximum protection from water damage.

§ 473.407 *Determination of quantity.* (a) The quantity of wheat placed under loan will be estimated, but measurements, threshing records, and other guides shall be used to the extent that they are practicable or available.

(b) The quantity of any wheat delivered to CCC shall be determined by weight. In determining the quantity of sacked wheat by weight, a deduction of three-fourths of a pound for each sack shall be made.

§ 473.408 *Determination of quantity.* The class, subclass, grade, grading factors, and all other quality factors shall be determined in accordance with the methods set forth in the Official Grain Standards of the United States for Wheat, whether or not such determinations are made on the basis of an official inspection: *Provided*, That determinations with respect to sanitation requirements shall be made in accordance with instructions issued by CCC.

§ 473.409 *Liens.* If there are any liens or encumbrances on the wheat waivers that will fully protect the interest of CCC must be obtained even though the liens or encumbrances are satisfied from the loan proceeds.

§ 473.410 *Service charges.* The producer shall pay a service charge of 1 cent per bushel on the number of bushels of wheat placed under a distress loan, or $3.00 whichever is greater. Such service charge shall be collected from the proceeds of the loan at the time the loan is disbursed. State committees, however, are authorized to require prepayment of $3.00 of the service charge at the time a producer applies for a loan. If, on or before the maturity date of the note, the producer obtains a nonrecourse price support loan on the wheat under the 1958 wheat price support program, he shall pay an additional service charge of 1 cent per bushel if placed under farm-storage loan, and ½ cent per bushel if placed under warehouse-storage loan, on any number of bushels by which the quantity of wheat placed under the regular loan exceeds the quantity placed under the distress loan. No refunds of service charges will be made.

§ 473.411 *Set-offs.* Set-offs shall be made against the proceeds of the distress loan in accordance with the provisions of § 421.3010 of this chapter.

§ 473.412 *Interest rate.* Loans shall bear interest at the rate of 3½ percent per annum from the date of disbursement of the loan, except that (a) where there is a default in satisfaction of the loan, the deficiency shall bear interest at the rate of 6 percent per annum from the date of default and (b) where there has been a fraudulent representation by the producer in the loan documents or in obtaining the loan, the loan shall bear interest at the rate of 6 percent per annum from the date of disbursement of the loan.

§ 473.413 *Release of wheat; transfer of producer's interest.* A producer may at any time obtain release of the wheat under loan by paying to the holder of the note the principal amount thereof, plus charges and accrued interest. All charges in connection with the collection of the note shall be paid by the producer. Upon presentation of the paid note, the county office shall arrange for the release of the chattel mortgage. The producer shall not transfer either his remaining interest in or his right to redeem the wheat mortgaged as security for a distress loan nor shall anyone acquire such interest or right. A producer who wishes to liquidate all or part of his loan by contracting for the sale of the wheat must obtain written prior approval of the county office on Commodity Loan Form 12 to remove the wheat from the premises when the proceeds of the sale are needed to repay all or any part of the loan. Any such approval shall be subject to the terms and conditions set out in Commodity Loan Form 12, copies of which may be obtained by producers or prospective purchasers, at the office of the county committee.

§ 473.414 *Safeguarding of the wheat.* The producer obtaining a distress loan shall take whatever action is practicable to keep the wheat in good condition, and in the event of damage to the commodity, he shall immediately notify the county office in writing of such damage.

§ 473.415 *Insurance.* CCC will not require the producer to insure the commodity placed under loan; however, if the producer insures such commodity and an indemnity is paid thereon, such indemnity shall inure to the benefit of CCC to the extent of its interest.

§ 473.416 *Losses in quantity or quality.* CCC will not assume losses in the quantity or quality of the wheat occurring for any reason.

§ 473.417 *Personal liability.* The making of any fraudulent representation by the producer in the loan documents, or in obtaining the loan or the conversion or unlawful disposition of any portion of the commodity by him, may render the producer subject to criminal prosecution under the Federal Law and shall render him personally liable not only for the amount of the loan (including interest) but also for any resulting expense incurred by any holder of the note. A producer shall be personally liable for any damage resulting from tendering to CCC wheat containing mercurial compounds or other substances poisonous to man or animals which are inadvertently accepted by CCC.

§ 473.418 *Loan rates.* Loans will be made under this program at 80 percent of the basic county support rate established for the wheat under the 1958-crop wheat price support program.

§ 473.419 *Maturity.* Loans will mature 90 days from the date of the note, or March 31, 1959, whichever is earlier, or earlier on demand.

§ 473.420 *Settlement*—(a) *Producer who obtains a price support loan.* If on or before maturity, the producer places the wheat in approved farm-storage or in an approved warehouse, he may obtain a price support loan at the full support rate. The price support loan will be made at the full support rate on the basis of the quantity and quality of eligible wheat which has been placed in an approved storage structure. When the price support loan is made, the principal of the distress wheat loan, plus interest at the rate specified in § 473.412 from the date of disbursement of the distress loan to the date of disbursement of the price support loan, shall be repaid to CCC either in cash or out of the proceeds of the price support loan.

(b) *Producer who does not obtain a price support loan.* The producer shall, upon maturity, repay his distress loan in cash or deliver the wheat to CCC as set forth in paragraphs (c) and (d) respectively of this section unless: (1) He places the wheat in approved farm storage or approved warehouse storage on or before maturity; (2) the wheat is eligible for a price support loan under §§ 421.3036 to 421.3045 of this chapter; and (3) the producer obtains a price support loan under the provisions of such sections.

(c) *Repayment of distress loan.* Repayments made in satisfaction of distress loans shall be made in cash and shall include the amount of the principal due on the loan plus interest at the rate specified in § 473.412.

(d) *Delivery to CCC.* If the producer desires to deliver the wheat he should, prior to maturity, give the county office notice in writing of his intention to do so. Delivery of the wheat to CCC shall be made in accordance with instructions issued by the county office. When the wheat is delivered to CCC under the distress loan, credit shall be given to the producer for the quantity and quality of wheat actually delivered, at the market price at the time and place of delivery as determined by CCC: *Provided, however,* That if such wheat is sold by CCC in order to determine the market price, the settlement value shall not be less than such sales price. If the amount of such credit exceeds the amount due on the principal of the loan plus interest, the amount of the excess shall be paid to the producer by sight draft drawn on CCC by the ASC County office subject to set-off in accordance with § 473.411. If the amount of such credit is less than the amount due on the principal of the loan plus interest, the amount of the deficiency plus interest thereon shall be paid to CCC. Any payment which would be due to the producer under any agricultural program administered by the Secretary of Agriculture, or any other payments which are due or may become due the producer from CCC or any other agency of the United States, may be set off against such deficiency.

(e) *Payments and collections; amounts not exceeding $3.00.* To avoid administrative costs of making small payments and handling small accounts, amounts due the producer of $3.00 or less will be paid only upon his request and a deficiency of $3.00 or less, including interest, may be disregarded by a producer unless demand for payment is made by CCC.

§ 473.421 *Foreclosure.* If the loan is not satisfied upon maturity, the holder of the note is authorized to remove the wheat from storage; and also to sell, assign, transfer, and deliver the wheat or documents evidencing title thereto at such time, in such manner, and upon such terms as the holder may determine, at public or private sale, either by separate contract or after pooling it with other lots of wheat similarly held. Any such disposition may similarly be effected without removing the wheat from storage. The wheat may be processed before sale and the holder of the note may become the purchaser of the whole or any part of the wheat. If the wheat is pooled, the producer has no right of redemption after the date the pool is established, but shall share ratably in any overplus remaining upon liquidation of the pool. CCC shall have the right to treat the pooled wheat as a reserve supply to be marketed under such sales policies as CCC determines will promote orderly marketing, protect the interests of producers and consumers and not unduly impair the market for the current crop of wheat even though part or all of such pooled wheat is disposed of under such policies at prices less than the current domestic price for such wheat. Any sum due the producer from the sale of the wheat or from an insurance indemnity paid on the wheat, or any ratable share resulting from the liquidation of a pool, after deducting the amount of the note,

interest, and charges, shall be payable only to the producer without right of assignment by him. If the wheat removed by CCC from storage is sold at less than the amount due on the loan including interest and charges, the producer shall pay to CCC the difference between the amount due on the loan and the sales proceeds of the wheat. The amount of the deficiency may be set off against any payment which would otherwise be due to the producer under any agricultural program administered by the Secretary of Agriculture or any other payments which are due or may become due the producer from CCC, or any other agency of the United States. The term "charges," as used in this section, means all fees, costs and expenses incident to insuring, carrying, handling, storing, conditioning, and marketing of the wheat, and otherwise protecting the interest in the mortgaged wheat of any holder of the note or the producer, including foreclosure costs.

Issued this 24th day of June 1958.

[SEAL] WALTER C. BERGER,
*Executive Vice President,*
*Commodity Credit Corporation.*

[F. R. Doc. 58-4974; Filed, June 27, 1958; 8:55 a. m.]

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[C. C. C. Mobile Drier Bulletin]

## PART 474—FARM-STORAGE FACILITIES

### SUBPART—PROGRAM TO FINANCE THE PURCHASE OF MOBILE DRYING EQUIPMENT FOR FARM COMMODITIES

This bulletin states the requirements with respect to the Program to Finance the Purchase of Drying Equipment for Farm Commodities formulated by Commodity Credit Corporation (hereinafter referred to as "CCC") and the Commodity Stabilization Service (hereinafter referred to as "CSS"). This bulletin supersedes the 1957 Mobile Drier Bulletin 1, 22 F. R. 4315, as amended. The program will be carried out by CSS under the general supervision and direction of the Executive Vice President.

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474.763 Loans made by CCC.
474.764 Eligible borrowers.
474.765 Eligible equipment.
474.766 Terms and conditions of loan.
474.767 Disbursement of loans.
474.768 Service charges.
474.769 Sale or conveyance of security.

AUTHORITY: §§ 474.761 to 474.769 issued under sec. 4, 62 Stat. 1070, as amended, 15 U. S. C. 714b. Interpret or apply secs. 4, 5, 62 Stat. 1070, as amended, 1072; 15 U. S. C. 714b, 714c.

§ 474.761 *Administration.* This program will be administered by CSS, under the general direction and supervision of the Executive Vice President, CCC, and in the field will be carried out by State and county Agricultural Stabilization and Conservation Committees (hereinafter called State and county committees). State and county committees do not have authority to modify or waive any provisions of this subpart or amendments or supplements to this subpart. Employees of county ASC committees shall execute instruments in accordance with delegations of authority published in 21 F. R. 2957.

§ 474.762 *Availability of loans*—(a) *Area.* Loans will be available in any State of the continental United States.

(b) *Time.* Loan applications may be submitted pursuant to this bulletin beginning with the date of publication hereof and continuing until termination of the program.

(c) *Applications for loans.* Any application for a loan shall be submitted to the county committee which will be responsible for obtaining appropriate review. Approved forms and documents will be made available through the offices of county committees. Disbursements of loans will be made by drafts drawn on CCC by the county office.

§ 474.763 *Loans made by CCC.* All loans under this program will be direct loans by Commodity Credit Corporation, except that a loan may be made by an approved lending agency if requested by the borrower upon specific approval of the Executive Vice President, Commodity Credit Corporation, or the Deputy Administrator for Operations, CSS. An approved lending agency shall be any bank, partnership, individual, or other legal entity which has entered into a lending agency agreement for storage equipment loans, on the form prescribed by CCC.

§ 474.764 *Eligible borrowers.* Loans for the purchase of eligible equipment will be made to eligible borrowers. An eligible borrower shall be a person, who (a) is a tenant, share-landlord, or landowner-operator who produces one or more of the eligible commodities listed in § 474.765 and (b) has facilities for the storage of one or more of such eligible commodities suitable for adaptation to artificial drying and needs such eligible equipment in connection with the utilization of such facilities. The term "person" means an individual, partnership, corporation, or other legal entity. If two or more eligible borrowers join together in the purchase of eligible equipment, they shall be liable jointly and severally with respect to the loan.

§ 474.765 *Eligible equipment.* (a) Loans will be made only for the purchase of eligible equipment. Eligible equipment shall be new mobile drying equipment (such as air-circulators, ventilators, tunnels and power-fans, or any combination thereof, and mechanical dryers of a mobile type), which will be used in connection with the conditioning of corn, oats, barley, grain sorghums, wheat, rye, soybeans, flaxseed, rice, dry edible beans, dry peas, peanuts, cottonseed, hayseed, pasture seeds, and winter cover crop seeds produced by the borrower.

(b) Loans will not be available (1) for the refinancing, repair, remodeling or maintenance of existing eligible equipment, or (2) for the purchase of second-hand equipment, or (3) for the use in connection with the conditioning of commodities which the borrower intends to purchase, or condition or store for others, provided, however, that a producer who is determined to require a heated air dryer to dry his own grain is permitted to use such dryer to dry the grain of his neighboring producers, or (4) where it appears that the equipment may be attached to, or become a part of, or made use of, in connection with any commercial operation, including but not limited to elevators, warehouses, drying or processing plants.

§ 474.766 *Terms and conditions of loan*—(a) *Term of loan.* The maximum term of the loan will be for a period of approximately three years, except that the term of an individual loan may be extended and reextended for terms of not to exceed one year each if the county committee determines in writing that the borrower is unable to meet the current payment when due because of catastrophic loss of crops or other comparable conditions beyond the control of the borrower. Loans will be payable in equal annual principal payments with interest at four percent per annum on the unpaid balance. The loan will be secured by a chattel mortgage on the equipment for which the loan is made, or by other security instrument approved by CCC. The equipment shall be free and clear of all other liens and encumbrances. The cost of recording or filing of all documents required in connection with the loan shall be paid by the borrower. Upon approval of the application for loan, the county committee will execute a commitment for the loan. Unless the loan has been totally disbursed, the loan commitment shall become null and void in four months after its date unless extended in writing by the county committee on or before its expiration date.

(b) *Amount of loan.* (1) The maximum amount of any loan shall not exceed the maximum amount authorized by the State committee and in no event shall exceed seventy-five percent of the delivered and assembled out-of-pocket cost paid by the borrower for the equipment for which the loan is made. The borrower shall be required to furnish receipted bills showing the cost of the equipment for which the loan is made and amount of down-payment, before the loan is disbursed.

(2) County committees may approve loan applications, issue loan commitments and make disbursement of loans, without prior approval of the State committee, except as specifically provided herein, of any amount not in excess of $5,000. Applications for mobile drying equipment loans in the amount of $5,000 or over shall be submitted through the State committee to the Deputy Administrator for Operations, CSS, for review and approval prior to the issuance of a commitment.

(c) *Repayment of loan.* (1) Payment will be due annually in equal payments beginning on the first anniversary date of the disbursement of the loan, and a like payment plus interest shall be due on each anniversary date thereafter until the principal, together with interest thereon, has been paid in full. Unless an extension is granted, in writing, failure to pay any installment by the twelfth month after such date or extension shall

mature all installments then unpaid, and the entire unpaid amount of the note, without demand, notice, or other action shall become immediately due and payable.

(2) Upon breach by the maker of the note of any covenants or agreements on his part to be performed under this subpart, or under the chattel mortgage or other security instruments securing the note, or under any other instruments executed in connection with the loan, or if the equipment for which the loan is made is used in connection with any commercial operation including but not limited to elevator, warehouse, drying, or processing plants during the life of the loan, the CCC holder, at its option, may declare the entire indebtedness immediately due and payable. Any unpaid amount on a delinquent loan or any past due amount on any annual payment may be deducted and paid out of any amounts due the borrower under any program carried out by the Department of Agriculture, utilizing CCC funds when the loan is held by a lending agency, or utilizing any funds available to the Department when the loan is held by CCC. Any payments for storage of commodities in farm storage structures under a price support or reseal program due from Commodity Credit Corporation to a borrower shall be applied (i) to any delinquent amount(s), and, (ii) to the borrower's mobile drying equipment loan installment which is due and payable when the storage payment is due, and (iii) to any extended installment(s), each including interest. The loan may be paid in part or in full by the borrower at any time before maturity. Upon payment of a loan secured by a mortgage which is held by CCC, the county committee shall be requested to release or obtain the release of such instruments of record. The chairman of each county committee is authorized to act as agent of CCC in releasing or obtaining the release of such instruments. Upon payment of loans secured by mortgages held by a lending agency, the lending agency should be requested to release such mortgage.

(d) *Insurance.* The borrower shall be required to maintain insurance for the life of the loan and for the face value of the loan with coverage for fire and other hazards common to the area for such equipment as determined necessary by the county committee. The insurance policy shall contain a loss payable clause in favor of the holder of the note and CCC, as their interests may appear, and the cost shall be borne by the borrower. If any insurance it not in effect at any time during the life of the loan, or extension thereof, the loan shall be called immediately.

§ 474.767 *Disbursement of loans.* Loans will be disbursed to borrowers directly by CCC by means of sight drafts issued by county ASC offices, or by an approved lending agency when a loan by a lending agency is specifically authorized.

§ 474.768 *Service charges.* A service charge of $5.00 or one percent of the amount of the loan, whichever is greater, shall be paid by the borrower at the time the application is made. If the loan is rejected or is not completed, the minimum fee of $5.00 shall be retained by the county committee and the balance returned to the applicant.

§ 474.769 *Sale or conveyance of security.* When a borrower desires to sell or convey the equipment for which the loan is made without repaying the loan in full, he shall apply to the Chairman of the county committee for approval of the sale or conveyance on behalf of CCC. If such approval is granted, the borrower and his purchaser shall execute an assumption agreement in form prescribed by CCC under which the borrower remains liable for the balance of the indebtedness and the purchaser assumes the balance of the indebtedness and agrees to comply with all the terms, conditions, covenants, and agreements set out in the security instruments. Approval of the transaction on behalf of CCC shall be shown by signature of the Chairman of the county committee in the space provided in the assumption agreement. The Chairman of each county committee is authorized to approve such transactions on behalf of CCC with respect to mobile drying equipment located within the county, by executing the consent provision in the assumption agreement. The assumption agreement form may be obtained from the county committee office.

Issued this 24th day of June 1958.

[SEAL] WALTER C. BERGER,
*Executive Vice President,*
*Commodity Credit Corporation.*

[F. R. Doc. 58-4975; Filed, June 27, 1958; 8:55 a. m.]

# TITLE 5—ADMINISTRATIVE PERSONNEL

## Chapter I—Civil Service Commission

### PART 6—EXCEPTIONS FROM THE COMPETITIVE SERVICE

#### DEPARTMENT OF THE NAVY

Effective upon publication in the FEDERAL REGISTER, the headnote of paragraph (e), and paragraph (e) (1) of § 6.106 are amended as set out below.

§ 6.106 *Department of the Navy.* * * *

(e) *U. S. Naval Research Laboratory, Washington, D. C., and U. S. Navy Electronics Laboratory, San Diego, California.* (1) Scientific and professional research associate positions when filled on a temporary or intermittent basis by persons having a doctoral degree in physical science or related fields of study, for research activities of mutual interest to the appointee and the Laboratory. Total employment under this provision may not exceed ten positions at the U. S. Naval Research Laboratory and six positions at the U. S. Navy Electronics Laboratory at any one time. Employment under this provision will not exceed one year in any individual case; provided that such employment may, with the approval of the Commission, be extended for not to exceed an additional year.

(R. S. 1753, sec. 2, 22 Stat. 403, as amended; 5 U. S. C. 631, 633)

UNITED STATES CIVIL SERVICE COMMISSION,
[SEAL] WM. C. HULL,
*Executive Assistant.*

[F. R. Doc. 58-4944; Filed, June 27, 1958; 8:50 a. m.]

# TITLE 7—AGRICULTURE

## Chapter I—Agricultural Marketing Service (Standards, Inspections, and Marketing Practices), Department of Agriculture

### Subchapter A—Commodity Standards and Standard Container Regulations

### PART 28—COTTON CLASSING, TESTING, AND STANDARDS

#### INCREASES IN PRICES FOR COTTON STANDARDS

Pursuant to authority contained in the United States Cotton Standards Act, as amended (42 Stat. 1517; 7 U. S. C. 51 et seq.), § 28.123 of the regulations under the United States Cotton Standards Act (7 CFR 28.123) is hereby amended to read as follows, effective July 1, 1958:

§ 28.123 *Costs of practical forms of cotton standards.* The cost of practical forms of the cotton standards of the United States shall be as follows:

| | Domestic shipments f. o. b. Washington | Shipments delivered outside the Continental United States |
|---|---|---|
| *Grade standards* | *Dollars each box* | |
| American Upland: | | |
| 12-sample official boxes (Universal Standards) | 12.00 | 14.00 |
| 6-sample guide boxes | 7.00 | 8.50 |
| American Egyptian: 6-sample official boxes | 12.00 | 14.00 |
| Sea Island: 12-sample official boxes | 12.00 | 14.00 |
| *Tentative Standards for Preparation of American Upland Long-Staple Cotton* | | |
| 6-sample boxes | 7.00 | 8.50 |
| *Standards for length of staple* | *Dollars each length* | |
| American Upland (prepared in one pound rolls for each length) | 2.50 | 3.00 |
| American Egyptian (prepared in one pound rolls for each length) | 2.50 | 3.00 |
| Sea Island (prepared in one pound rolls for each length) | 2.50 | 3.00 |

The amendment reflects increases in the prices of all practical forms (boxes) of cotton standards. These increases have become necessary to more nearly cover the costs of preparing and distributing the standards.

Notice of proposed rule making, public procedure thereon, and postponement of the effective time of this document later than July 1, 1958 (see section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) are impracticable, unnecessary, and contrary to the public interest for the reasons that: (1) Legislation provides that the fees charged shall be reasonable and shall as nearly as possible cover the cost of the service rendered; (2) the cost of such service is

peculiarly within the knowledge of the Department and the fees set forth herein are necessary to more nearly cover such cost including, but not limited to increased salaries to Federal employees required by recent legislation (Public Law 462, 85th Congress, 2d Session, approved June 20, 1958); (3) it is imperative that the increase in fees become effective with the commencement of the new fiscal year; and (4) additional time is not required in order for the industry to make preparation for compliance with this amendment.

(Sec. 10, 42 Stat. 1519; 7 U. S. C. 61)

Done at Washington, D. C., this 25th day of June 1958, to become effective July 1, 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4973; Filed, June 27, 1958; 8:55 a. m.]

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Subchapter C—Regulations and Standards Under the Farm Products Inspection Act

PART 51—FRESH FRUITS, VEGETABLES AND OTHER PRODUCTS (INSPECTION, CERTIFICATION AND STANDARDS)[1]

FEES FOR INSPECTION AND CERTIFICATION

Pursuant to the authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087 et seq., as amended; 7 U. S. C. 1621 et seq.) for the provision of a service for the inspection and certification of the class, quality and condition of agricultural products, including the assessment and collection of fees to cover the cost of such service, §§ 51.37 and 51.45 (d) of the regulations governing the inspection and certification of fresh fruits, vegetables and other products (7 CFR §§ 51.1 to 51.67) are hereby amended by deleting the same and inserting in lieu thereof the following:

§ 51.37 *Basis for charges.* (a) The fee for each lot of products inspected by a salaried inspector acting exclusively for the Department, except for peanuts, pecans, and other nuts, shall be on the following basis: (1) For an inspection covering quality and condition, $12.00 when the quantity involved is more than one-half of a carload of the customary size for such products in the area from which shipped but not more than a full carload, and $8.00 when the quantity involved is not more than one-half of such carload, but the maximum fee for any carload not exceeding the customary size which contains more than one kind of a product shall be $24.00; (2) For an inspection covering condition-only, $10.00 when the quantity involved is more than one-half of a carload of the customary size for such products in the area from which shipped but not more than a full carload, and $7.00 when the quantity involved is not more than one-half of such carload, but the maximum fee for condition-only inspection of any carload not exceeding the customary size which contains more than one kind of a product shall be $20.00; (3) When any lot involved is in excess of a carload the quantity shall be calculated in terms of carloads and fractions thereof of the customary size for such carloads and carload rates aforesaid applied: *Provided,* That such fractions shall be calculated in terms of fourths or next higher fourths.

(b) *Base fee for peanuts, pecans, or other nuts.* The base fee for peanuts (shelled), pecans, or other nuts shall be $15.00 for each lot of the customary carload size for such products in the area from which shipped: *Provided,* That the fee shall be adjusted on an approximately proportional basis to determine the fee for any size lot which is smaller or larger than a carload of the customary size based either on number of pounds or number of containers: *And provided further,* That the minimum fee shall be $10.00 per lot, the different grades and varieties of peanuts shall be considered separate lots, and the fee for Farmers' stock peanuts (unshelled) shall be $1.50 per ton.

(c) When inspections are made on which formal certificates are not issued, as provided in § 51.19, or when the products inspected cannot readily be calculated in terms of carlots or when samples are drawn, or when the services rendered are such that a charge on the carlot basis would be inadequate or inequitable, charges for inspection may be based on the time consumed by the inspector in connection with such inspections, computed at the rate of $4.50 per hour, or the charges may be based on the number of pounds or number of containers in the lot inspected, if such charges are in substantial conformity with the hourly or carload rate.

(d) Whenever inspections are performed at the request of the applicant on Saturdays, Sundays, holidays or at any other periods which are outside the inspector's regular scheduled workweek, the charge for inspection shall be $2.25 per hour or portion thereof per inspector in addition to the regular commercial lot or hourly fees specified in this subpart.

§ 51.45 *Schedule of fees.* * * *

(d) *Base fee for peanuts, pecans, or other nuts.* The base fee for peanuts (shelled), pecans, or other nuts shall be $15.00 for each lot of the customary carload size for such products in the area from which shipped: *Provided,* That the fee shall be adjusted on an approximately proportional basis to determine the fee for any size lot which is smaller or larger than a carload of the customary size based either on number of pounds or number of containers: *And provided further,* That the minimum fee shall be $10.00 per lot, the different grades and varieties of peanuts shall be considered separate lots, and the fee for farmers' stock peanuts (unshelled) shall be $1.50 per ton.

Notice of proposed rule making, public procedure thereon, and postponement of the effective time of this document later than July 1, 1958 (see Section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) are impracticable, unnecessary, and contrary to the public interest for the reasons that: (1) Legislation provides that the fees charged shall be reasonable and shall as nearly as possible cover the cost of the service rendered; (2) the cost of such service is peculiarly within the knowledge of the Department and the fees set forth herein are necessary to more nearly cover such cost including, but not limited to increased salaries to Federal employees required by recent legislation (Public Law 462, 85th Congress, 2d Session, approved June 20, 1958); (3) it is imperative that the increase in fees become effective with the commencement of the new fiscal year; and (4) additional time is not required in order for the industry to make preparation for compliance with this amendment.

(Sec. 205, 60 Stat. 1090, as amended; 7 U. S. C. 1624)

Dated: June 24, 1958, to become effective July 1, 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Marketing Services.*

[F. R. Doc. 58-4971; Filed, June 27, 1958; 8:54 a. m.]

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PART 53—LIVESTOCK, MEATS, PREPARED MEATS, AND MEAT PRODUCTS (GRADING, CERTIFICATION, AND STANDARDS)

FEES FOR GRADING SERVICE

Pursuant to the authority of sections 203 and 205 of the Agricultural Marketing Act of 1946, as amended (7 U. S. C. 1622, 1624), and delegation of the authority of the Secretary of Agriculture (19 F. R. 74; 19 F. R. 35) the following changes are made in the provisions prescribing fees for Federal meat grading service in 7 CFR 53.35a, as amended.

1. Section 53.35a (a) is amended to read as follows:

(a) The hourly rate for grading service shall be $6.00 per hour with a minimum charge of $3.00, and double said amounts for service on legal holidays.

2. Section 53.35a (b) is amended to read as follows:

(b) Fees for grading performed on a weekly contract basis shall be $240.00 per calendar week (less any allowable credits), to cover up to 40 hours of weekly grading service.

3. Section 53.35a (e) is amended to read as follows:

(e) The following fees are prescribed for each investigation, other than the first one, necessary to determine the acceptability of an inspection system at any nonfederally inspected plant preparing products for which application for grading service is made. A fee at the grading service is made. A fee at the rate of $6.00 per hour shall be charged for time actually spent by an authorized official in making such investigation and in traveling to the particular plant from the place at which he receives the assignment to perform such work and in travel-

[1] Among such other products are the following: Raw nuts, Christmas trees and greens; flowers and flower buds; and onion sets.

ing back to such place or to another place equally distant from such plant. In addition there shall be charged a transportation fee not to exceed eight cents per mile for such travel plus any per diem at the rate of $12 per day or portion thereof paid to such official in accordance with applicable regulations of the Department of Agriculture. In no case shall the total fees for any such investigations be less than $15.

Notice of proposed rule making, public procedure thereon, and postponement of the effective time of this document later than June 29, 1958 (see section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) are impracticable, unnecessary, and contrary to the public interest for the reasons that: (1) Legislation provides that the fees charged shall be reasonable and shall as nearly as possible cover the cost of the service rendered; (2) the cost of such service is peculiarly within the knowledge of the Department and the fees set forth herein are necessary to more nearly cover such cost, including, but not limited to increased salaries to Federal employees, required by recent legislation (Public Law 462, 85th Congress, 2d Session, approved June 20, 1958); (3) it is imperative that the increase in fees become effective as soon as practicable; and (4) additional time is not required in order for the industry to make preparation for compliance with this amendment.

This amendment shall become effective at 12:01 a. m., June 29, 1958, with respect to all Federal meat grading service thereafter rendered including service under weekly grading contracts whether theretofore or thereafter made.

(Secs. 203, 205, 60 Stat. 1087, as amended, 1090, as amended; 7 U. S. C. 1622, 1624)

Done at Washington, D. C., June 25, 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator.*

[F. R. Doc. 58-4965; Filed, June 27, 1958; 8:53 a. m.]

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## PART 54—GRADING AND INSPECTION OF DOMESTIC RABBITS AND EDIBLE PRODUCTS THEREOF AND UNITED STATES SPECIFICATIONS FOR CLASSES, STANDARDS, AND GRADES WITH RESPECT THERETO

### MISCELLANEOUS AMENDMENTS

The regulations governing the grading and inspection of domestic rabbits and edible products thereof and United States specifications for classes, standards, and grades with respect thereto (7 CFR Part 54) are amended as hereinafter set forth pursuant to authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.). The amendment increases the charges for grading and inspection services. The increases are necessary by virtue of recent legislation which raised the salary of Federal employees and because of job reclassifications authorized by the U. S. Civil Service Commission. The amendment also changes the application for inspection service by removing the terms and conditions thereof from the form and inserting them in the regulations proper, under the portion dealing with fees and charges. This conforms with the provisions of regulations governing the voluntary egg and poultry inspection and grading programs. This change will not currently affect any person since there are no applicants receiving service under the original form of application.

It is hereby found that it would be impracticable, unnecessary, and contrary to public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that: (1) The costs of performing the service are increased and the Agricultural Marketing Act of 1946, requires that fees charged for performing the service shall, as nearly as may be, cover the costs thereof; (2) the facts upon which the determinations with respect to charges necessary to cover increased costs are not available to the industry, but are peculiarly within the knowledge of the Department; and (3) the change will not affect any person since there are no applicants receiving service under the form of application prior to this amendment; and (4) additional time is not required to comply with this amendment.

The amendment hereinafter set forth is promulgated to become effective July 1, 1958.

The amendment is as follows:

1. Delete the definition "Act" in § 54.1 *Definitions*, and substitute in lieu thereof the following:

"Act" means the applicable provisions of the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.), or any other act of Congress conferring like authority.

2. Change paragraph (b) of § 54.101 by deleting the figure "$4.00" and inserting therefor the figure "$5.00."

3. Change paragraph (c) of § 54.101 to read as follows:

(c) If an applicant requests that any grading service be performed on a holiday or a nonwork day or at a time other than during the grader's normal working hours, he shall be charged for such service at the rate of $6.00 per hour.

4. Delete the second sentence of § 54.102.

5. Change § 54.103 *Domestic rabbits grading fees.* For each grading of any lot of domestic rabbits, whether live or ready-to-cook, the following fees shall be applicable:

| | Fee |
|---|---|
| For 500 pounds or less | (1) |
| For 501 to 1,500 pounds, inclusive | $3.60 |
| For 1,501 to 3,000 pounds, inclusive | 4.80 |
| For 3,001 to 6,000 pounds, inclusive | 6.75 |
| For 6,001 to 10,000 pounds, inclusive | 10.25 |
| For 10,001 to 15,000 pounds, inclusive | 14.00 |
| For 15,001 to 20,000 pounds, inclusive | 17.00 |
| For each additional 5,000 pounds, or fraction thereof, in excess of 20,000 pounds | 3.00 |

[1] Based on time required.

6. Change § 54.104 by deleting the figure "$4.00" and inserting therefor the figure "$5.00."

7. Change § 54.107 to read as follows:

§ 54.107 *Inspection on a resident inspection basis*—(a) *Charges.* The charges for inspection of domestic rabbits and edible products thereof shall be paid by the applicant for the service and shall include such of the items listed in this section as are applicable. Payment for the full cost of the inspection service rendered to the applicant shall be made by the applicant to the Agricultural Marketing Service, United States Department of Agriculture (hereinafter referred to as "AMS") not later than fifteen (15) days from the date of billing. The billing shall be made on the last day of the month for which billing is made on an estimated cost basis, with adjustments between estimated costs and actual costs being made on the bill for the following month. Such full costs shall comprise such of the items listed in this section as may be due and may be included, from time to time, in the bill or bills covering the period or periods during which the inspection service may be rendered. A charge will be made by AMS in the amount of one (1) percent per month, or fraction thereof, of any amounts remaining unpaid after 30 days from the date of billing.

(1) A charge of $125.00 for the combined initial and final survey (required to be made with respect to an official plant pursuant to the regulations in this part) made of the designated plant and its premises prior to the performance, by AMS of the inspection service.

(2) Charges for each survey in addition to those provided in subparagraph (1) of this paragraph, if any, made at the request of the applicant, or determined by AMS to be necessary, to be computed on the basis (i) of the actual cost to AMS of the travel and per diem in lieu of subsistence incurred in the making of the survey, and (ii) a charge of $5.00 per hour for the time consumed at the plant in making the survey: *Provided,* That the minimum charge shall be for six (6) hours.

(3) A charge of (i) $154.00 per 40-hour work week for each inspector assigned to the designated plant by AMS for the inspection of dressed domestic rabbits at the time of evisceration; (ii) $154.00 per 40-hour work week for each inspector assigned to the designated plant by AMS for the inspection of canning or other processing of domestic rabbit products: *Provided,* That with respect to each inspector who is employed by AMS on a "when actually employed" basis, such charges shall be computed on the appropriate hourly basis: *Provided, further,* That no charge shall be made for any inspector during any period of leave approved by AMS for such inspector.

(4) A charge of $4.65 per hour for each hour of overtime work performed by each inspector assigned to any type of operation described in subparagraph (3) of this paragraph: *Provided,* That any unscheduled overtime work performed by an inspector on a day when no work is scheduled for him, or for which he is required to return to his place of employment, shall be considered to be at least two hours in duration.

(5) A night differential charge of $0.385 per hour for inspectors performing inspection of dressed domestic rabbits at the time of evisceration and $0.385 for inspectors performing inspection of canning or other processing of domestic rabbit food products for each hour of any regularly scheduled work between the hours of 6:00 p. m. and 6:00 a. m.

(6) A charge of $7.70 per hour for inspectors performing inspection of domestic rabbits at the time of evisceration and $7.70 per hour for inspectors performing inspection of canning or other processing of domestic rabbit food products for each hour of such work performed on a designated holiday: *Provided*, That the charge shall be for a minimum of two hours.

(7) A charge for the actual cost to AMS of the travel and per diem in lieu of subsistence with respect to each inspector who is assigned to the designated plant but whose travel headquarters is not at the designated plant, such charge to cover the period during which each such inspector is assigned to the designated plant, and travel to and from the designated plant in connection with such assignment.

(8) A charge of $250.00 to cover the average cost of travel per diem and movement of household goods of an inspector and his dependents whose travel headquarters is changed, when the assignment is made for the purpose of (i) installation of service, or (ii) when an additional inspector is assigned to the plant to handle increased workload: *Provided*, That no charge shall be made when the assignment of an inspector is made at the sole discretion of AMS to replace an inspector who has resigned, retired, died, or otherwise become unable to perform the inspection work, or if his services are no longer required in the plant due to a decrease in the volume of work or the cancellation of the inspection service by the applicant, or for other administrative reasons.

(9) A charge for the actual cost to AMS of the travel and per diem in lieu of subsistence with respect to each inspector who is assigned to the designated plant and whose travel headquarters is at the designated plant, if at the request of the designated plant, such inspector is reassigned temporarily to another official plant, such charge to cover the period during which each such inspector is reassigned to the other plant, and the travel to and from the designated plant in connection with such reassignment.

(10) A minimum charge of $25.00 for each calendar month after inspection is inaugurated in the designated plant.

(11) The charges and credits specified in subparagraphs (3), (4), (5), (6), (7), (8), (9), (10), and (12) of this paragraph shall be billed at the end of each calendar month. The charge for each 8-hour day, for the services of any inspector, shall be at the rate of one-fifth of the applicable charge for each 40-hour work week, as provided in subparagraph (3) of this paragraph. Overtime and night differential charges (when applicable) shall be billed at the rates specified in subparagraphs (4) and (5) of this paragraph.

(12) The applicant will be given credit when inspectors assigned to the applicant's official plant perform inspection for the Department of Defense on products accepted for delivery by the applicant to the Department of Defense. The amount of such credit will be based on a formula concurred in jointly by the Departments of Defense and Agriculture.

(13) A charge equal to the actual amounts reimbursed to the Agricultural Research Service by AMS, plus twenty-five (25) percent of such amounts to cover administrative overhead of AMS, when inspectors of the Meat Inspection Branch, Agricultural Research Service, are assigned to the designated plant for inspection of canning or processing of domestic rabbit food products. The charges provided for in this subparagraph are in lieu of the charges specified in subparagraphs (3) to (9) and subparagraph (11) of this paragraph. Payment for the full cost of the inspection service rendered to the applicant shall be made by the applicant to AMS not later than fifteen (15) days from the date of billing. A charge will be made by AMS in the amount of one (1) percent per month or fraction thereof of any amounts remaining unpaid after 30 days from the date of billing.

(b) *Other provisions.* (1) The applicant shall furnish such stenographic and clerical assistance as may be necessary in typing certificates, official reports and handling correspondence in connection with the inspection service.

(2) Inspectors will be provided by AMS to perform the inspection service. AMS, may, from time to time, assign to the designated plant such additional inspectors as it deems necessary in order to perform the inspection service, or decrease the number of inspectors when fewer inspectors are needed to perform such service.

(3) Whenever operations at the designated plant are discontinued during a period or periods, any inspector (assigned by AMS to the designated plant) may perform such other services as may be deemed appropriate, and are approved by the area supervisor.

(4) The inspection service shall be provided at the designated plant and shall be continued until the service is suspended, withdrawn, or terminated (i) by mutual consent; (ii) by thirty (30) days' written notice given by either party to the other party specifying the date of suspension, withdrawal, or termination; (iii) pursuant to the regulations in this part; (iv) upon one (1) day's written notice by AMS to the applicant, if the applicant fails to honor any invoice within thirty (30) days after date of invoice covering the costs of the inspection service, or if the applicant fails to comply with the terms and conditions of this section.

8. Change § 54.281 to read as follows:

§ 54.281 *Application for inspection of domestic rabbits and edible products thereof for condition and wholesomeness.*

Application is hereby made, in accordance with the applicable provisions of the regulations (7 CFR Part 54) governing the inspection of domestic rabbits and edible products thereof for condition and wholesomeness at the following designated plant:

Name of plant _____
Street address _____
City and State _____

In making this application the applicant agrees to comply with the terms and conditions of the aforesaid regulations (including but not being limited to such instructions governing inspection of products as may be issued, from time to time, by the Administrator). This application is made for inspection services to be performed on a resident inspection basis pursuant to § 54.107 and such other provisions of the aforesaid regulations which are applicable.

_____
(Applicant) [1]
By _____
_____
(Street)
_____ _____
(City) (State)
_____
(Date)

Application granted:

_____
(Date)
_____
_____
(Title)

[1] No Member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any benefit that may arise from this service unless derived through service rendered a corporation for its general benefit.

9. Change § 54.282 to read as follows:

§ 54.282 *Application for inspection of canning and processing of domestic rabbits in plants operating under Federal meat inspection service.*

Application is hereby made, in accordance with the applicable provisions of the regulations (7 CFR Part 54) governing the inspection of domestic rabbits and edible products thereof for condition and wholesomeness at the following designated plant:

Name of plant _____
Street address _____
City and State _____

In making this application the applicant agrees to comply with the terms and conditions of the aforesaid regulations (including but not being limited to such instructions governing inspection of products as may be issued, from time to time, by the Administrator). This application is made for inspection service to be performed on a resident inspection basis pursuant to subparagraphs (1), (2), (10), (12), and (13) of paragraph (a) and paragraph (b) of § 54.107, and such other provisions of the aforesaid regulations which are applicable.

_____
(Applicant) [1]
By _____
(Title)
_____
(Street)
_____ _____
(City) (State)
_____
(Date)

Application granted:

_____
(Date)
_____
(Title)

[1] No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any benefit that may arise from this service unless derived through service rendered a corporation for its general benefit.

(60 Stat. 1090; 7 U. S. C. 1624)

Issued at Washington, D. C., this 25th day of June 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4972; Filed, June 27, 1958; 8:55 a. m.]

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## PART 55—GRADING AND INSPECTION OF EGG PRODUCTS

### MISCELLANEOUS AMENDMENTS

The regulations governing the grading and inspection of egg products (7 CFR Part 55) are amended as hereinafter set forth pursuant to authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.). The amendment increases the charges for grading and inspection services. The increases are necessary by virtue of recent legislation which raised the salary of Federal employees and because of job reclassifications authorized by the U. S. Civil Service Commission.

It is herby found that it would be impracticable, unnecessary, and contrary to public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that: (1) The costs of performing the service are increased and the Agricultural Marketing Act of 1946 requires that fees charged for performing the service shall, as nearly as may be, cover the costs thereof; (2) the facts upon which the determinations with respect to charges necessary to cover increased costs are not available to the industry, but are peculiarly within the knowledge of the Department; and (3) additional time is not required to comply with this amendment.

The amendment hereinafter set forth is promulgated to become effective July 1, 1958.

The amendment is as follows:

1. Change paragraph (b) in § 55.61 by deleting the figure "$4.00" and inserting therefor the figure "$5.00."

2. Change paragraph (c) of § 55.61 to read as follows:

(c) If an applicant requests that any grading service be performed on a holiday or a nonwork day, or at a time other than during the grader's normal working hours, he shall be charged for such services at the rate of $6.00 per hour.

3. Change paragraph (a) of § 55.65 to read as follows:

(a) *Frozen eggs*—(1) *Inspection for condition only.*

| | Fee |
|---|---|
| For 15 packages or less | $2.40 |
| For 16 to 50 packages, inclusive | 3.60 |
| For each additional 100 packages, or fraction thereof, in excess of 50 packages | 1.20 |
| When each individual package in any lot is inspected for condition only, the fee for each package inspected shall be | .25 |

(2) *Inspection for condition and sampling for laboratory anaylsis.*

| | |
|---|---|
| For 50 packages or less | $5.00 |
| For 51 to 100 packages, inclusive | 6.00 |
| For each additional 100 packages, or fraction thereof, in excess of 100 packages | 1.25 |

4. Change § 55.67 by deleting the figure "$4.00" and substituting therefor "$5.00."

5. Change paragraph (a) (3) of § 55.68 to read as follows:

(3) A charge of $5.00 per hour, plus actual cost to AMS for per diem and travel costs incurred in rendering service not specifically covered in this section, such as, but not limited to, surveys in addition to the initial and final surveys.

6. Change paragraph (a) (9) of § 55.68 by deleting the table of charges set forth therein and substituting the following:

COMPUTATION OF ADMINISTRATIVE SERVICE CHARGES

| | |
|---|---|
| Where application is in effect and no product is handled | $25.00 |
| 1 to 100,000 pounds | 40.00 |
| 100,001 to 200,000 pounds | 55.00 |
| 200,001 to 300,000 pounds | 65.00 |
| 300,001 to 400,000 pounds | 75.00 |
| 400,001 to 500,000 pounds | 85.00 |
| For each additional 100,000 pounds, or fraction thereof, in excess of 500,000 pounds | [1] 5.00 |

[1] The maximum charge shall not exceed $175.00.

7. Change paragraph (a) (10) of § 55.68 to read as follows:

(10) A charge equal to 7 percent of the overtime salary paid by AMS to each grader.

(60 Stat. 1090; 7 U. S. C. 1624)

Issued at Washington, D. C., this 25th day of June 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4960; Filed, June 27, 1958; 8:52 a. m.]

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## PART 56—GRADING AND INSPECTION OF SHELL EGGS AND UNITED STATES STANDARDS, GRADES, AND WEIGHT CLASSES FOR SHELL EGGS

### MISCELLANEOUS AMENDMENTS

The regulations governing the grading and inspection of shell eggs and United States standards, grades, and weight classes for shell eggs (7 CFR Part 56), are amended as hereinafter set forth pursuant to authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.). The amendment increases the charges for grading and inspection services. The increases are necessary by virtue of recent legislation which raised the salary of Federal employees and because of job reclassifications authorized by the U. S. Civil Service Commission.

It is hereby found that it would be impracticable, unnecessary, and contrary to public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that: (1) The costs of performing the service are increased and the Agricultural Marketing Act of 1946 requires that fees charged for performing the service shall, as nearly as may be, cover the costs thereof; (2) the facts upon which the determinations with respect to charges necessary to cover increased costs are not available to the industry, but are peculiarly within the knowledge of the Department; and (3) additional time is not required to comply with this amendment.

The amendment hereinafter set forth is promulgated to become effective July 1, 1958.

The amendment is as follows:

1. Change paragraph (b) of § 56.46 by deleting the figure "$4.00" and inserting therefor the figure "$5.00".

2. Change paragraph (c) of § 56.46 to read as follows:

(c) If an applicant requires that any grading service be performed on a holiday or a nonwork day or at a time other than during the grader's normal working hours, he shall be charged for such service at the rate of $6.00 per hour.

3. Change § 56.50 by deleting the table of charges and inserting in lieu thereof the following:

| | |
|---|---|
| For 10 cases or less | [1] |
| For 11 to 25 cases, inclusive | $3.60 |
| For 26 to 50 cases, inclusive | 4.80 |
| For 51 to 100 cases, inclusive | 6.75 |
| For 101 to 200 cases, inclusive | 10.25 |
| For 201 to 300 cases, inclusive | 14.00 |
| For 301 to 400 cases, inclusive | 16.25 |
| For 401 to 500 cases, inclusive | 19.00 |
| For 501 to 600 cases, inclusive | 21.00 |
| For each additional 35 cases, or fraction thereof, in excess of 600 cases | 1.25 |

[1] Fee based on time required.

4. Change § 56.51 by deleting the figure "$4.00" and inserting therefor the figure "$5.00".

5. Change paragraph (a) (3) of § 56.52 to read as follows:

(3) A charge of $5.00 per hour plus actual costs to AMS for per diem and travel costs incurred in rendering service not specifically covered in this section; such as, but not limited to, surveys in addition to the initial and final survey.

6. Change paragraph (a) (9) of § 56.52 by deleting the table of charges and insert the following:

COMPUTATION OF ADMINISTRATIVE SERVICE CHARGES

| | |
|---|---|
| Where application is in effect and no product is handled | $25.00 |
| 1 to 1,000 cases | 35.00 |
| For each additional 1,000 cases, or fraction thereof, in excess of 1,000 cases | [1] 5.00 |

[1] The maximum charge shall not exceed $150.00.

7. Change paragraph (a) (10) of § 56.52 to read as follows:

(10) A charge equal to 7 percent of the overtime salary paid by AMS to each grader.

(60 Stat. 1090; 7 U. S. C. 1624)

Issued at Washington, D. C., this 25th day of June 1958.

ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4961; Filed, June 27, 1958; 8:53 a. m.]

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PART 61—COTTONSEED SOLD OR OFFERED FOR SALE FOR CRUSHING PURPOSES (INSPECTION, SAMPLING, AND CERTIFICATION)

INCREASES IN FEES FOR LICENSES AND GRADE CERTIFICATES

Pursuant to authority contained in the Agricultural Marketing Act of 1946, as amended (60 Stat. 1087; 7 U. S. C. 1621 et seq.), §§ 61.43, 61.44, and 61.45 of the regulations for cottonseed sold or offered for sale for crushing purposes (7 CFR 61.43, 61.44, and 61.45) are hereby amended as follows, effective July 1, 1958:

§ 61.43 *Fee for sampler's license.* For the examination of an applicant for a license to sample and certificate official samples of cottonseed the fee shall be $7.50, but no additional charge shall be made for the issuance of a license. For each renewal of a sampler's license the fee shall be $5.00.

§ 61.44 *Fee for chemist's license.* For the examination of an applicant for a license as a chemist to analyze and certificate the grade of cottonseed the fee shall be $100.00, but no additional charge shall be made for the issuance of a license. For each renewal of a chemist's license the fee shall be $30.00.

3. In § 61.45, the words "25 cents" are deleted and the words "30 cents" substituted therefor.

The amendments reflect increases in the following fees: (1) Initial issuance and renewal of licenses for cottonseed samplers; (2) initial issuance of licenses for cottonseed chemists; and (3) the fee paid to the Agricultural Marketing Service by licensed chemists for each cottonseed grade certificate issued. These increases have become necessary to more nearly cover the costs of administering and supervising the cottonseed sampling and grading program.

Notice of proposed rule making, public procedure thereon, and postponement of the effective time of this document later than July 1, 1958 (see section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) are impracticable, unnecessary, and contrary to the public interest for the reasons that: (1) Legislation provides that the fees charged shall be reasonable and shall as nearly as possible cover the cost of the service rendered; (2) the cost of such service is peculiarly within the knowledge of the Department and the fees set forth herein are necessary to more nearly cover such cost including, but not limited to increased salaries to Federal employees, required by recent legislation (Pub. Law 462, 85th Cong. 2d Session, approved June 20, 1958); (3) it is imperative that the increase in fees become effective with the commencement of the new fiscal year; and (4) additional time is not required in order for the industry to make preparation for compliance with this amendment.

(Sec. 205, 60 Stat. 1090, as amended; 7 U. S. C. 1624)

Done at Washington, D. C., this 25th day of June 1958 to become effective July 1, 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4963; Filed, June 27, 1958; 8:54 a. m.]

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PART 70—GRADING AND INSPECTION OF POULTRY AND EDIBLE PRODUCTS THEREOF AND UNITED STATES CLASSES, STANDARDS, AND GRADES WITH RESPECT THERETO

MISCELLANEOUS AMENDMENTS

The regulations governing the grading and inspection of poultry and edible products thereof and United States classes, standards, and grades with respect thereto (7 CFR Part 70), are amended as hereinafter set forth pursuant to authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.). The amendment increases the charges for grading and inspection services. The increases are necessary by virtue of recent legislation which raised the salary of Federal employees and because of job reclassification directed by the U. S. Civil Service Commission.

It is hereby found that it would be impracticable, unnecessary and contrary to public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that: (1) The costs of performing the service are increased and the Agricultural Marketing Act of 1946, requires that fees charged for performing the service shall, as nearly as may be, cover the costs thereof; (2) The facts upon which the determinations with respect to charges necessary to cover increased costs are not available to the industry, but are peculiarly within the knowledge of the Department; (3) other changes in the regulations are of a minor nature and are relieving restrictions; and (4) additional time is not required to comply with this amendment.

The amendment hereinafter set forth is promulgated to become effective July 1, 1958.

The amendment is as follows:

1. Add the following sentence to paragraph (b) of § 70.91: "Notwithstanding the foregoing, the name and address of the firm may be shown on the label which bears the grade mark in lieu of the plant number: *Provided*, That the plant number appears on the giblet wrapper that is packed with the carcass."

2. Change paragraph (b) of § 70.131 by deleting the figure "$4.00" that appears therein and substituting in lieu thereof the figure "$5.00".

3. Change paragraph (c) of § 70.131 to read as follows:

(c) If an applicant requires that any grading service be performed on a holiday or nonwork day or at a time other than during the grader's normal working hours, he shall be charged for such service at the rate of $6.00 per hour.

4. Change § 70.133 to read as follows:

§ 70.133 *Poultry grading fees.* For each grading for class, quality, or condition of any lot of poultry, whether live, dressed or ready-to-cook, the following fees shall be applicable, except in instances where more than one lot of product is involved in a single grading for contract acceptance of product to be delivered to an individual receiver, the charge for examining these lots in excess of one may be based on the time required at the rate specified in § 70.131 (b) or (c), whichever is applicable:

| | |
|---|---|
| For 500 pounds or less | (1) |
| For 501 to 1,500 pounds, inclusive | $3.60 |
| For 1,501 to 3,000 pounds, inclusive | 4.80 |
| For 3,001 to 6,000 pounds, inclusive | 6.75 |
| For 6,001 to 10,000 pounds, inclusive | 10.25 |
| For 10,001 to 15,000 pounds, inclusive | 14.00 |
| For 15,001 to 20,000 pounds, inclusive | 17.00 |
| For each additional 5,000 pounds, or fraction thereof, in excess of 20,000 pounds | 3.00 |

[1] Fee based on time required.

Determination of quantity (weight test) shall be charged for at the rate of $5.00 per hour.

5. Change § 70.134 by deleting the figure "$4.00" and inserting in lieu thereof the figure "$5.00", and add the following sentence: "Inspection service performed on a holiday or nonwork day shall be charged for at the rate of $6.00 per hour."

6. Change paragraph (a) (1) of § 70.138 by deleting the referenced subparagraph "(10)" and inserting in lieu thereof "(3)".

7. Change paragraph (a) (3) of § 70.138 to read as follows:

(3) A charge of $5.00 per hour plus actual costs to AMS for per diem and travel costs incurred in rendering service not specifically covered in this section; such as, but not limited to, surveys in addition to the initial and final surveys.

8. Change paragraph (a) (9) of § 70.138 to read as follows:

(9) An administrative service charge based on the aggregate weight of the total monthly volume of all poultry handled in the plant, and computed in accordance with the following table:

COMPUTATION OF ADMINISTRATIVE SERVICE CHARGES

| | |
|---|---|
| Where an approved application is in effect and no product is handled | $25.00 |
| 1 to 100,000 pounds | 40.00 |
| 100,001 to 200,000 pounds | 55.00 |
| 200,001 to 300,000 pounds | 65.00 |
| 300,001 to 400,000 pounds | 75.00 |
| 400,001 to 500,000 pounds | 85.00 |
| For each additional 100,000 pounds, or fraction thereof, in excess of 500,000 pounds | [1] 5.00 |

[1] The maximum charge shall not exceed $175.00.

9. Change paragraph (a) (10) of § 70.138 to read as follows:

(10) A charge equal to 7 percent of the overtime salary paid by AMS to each grader.

10. Change paragraph (a) (3) of § 70.141 by deleting the figures "$142.00" and "$124.00" and inserting therefor the figure "$154.00."

11. Change paragraph (a) (4) of § 70.141 by deleting the figure "$4.25" and inserting therefor the figure "$4.65."

12. Change paragraph (a) (5) in § 70.141 by deleting the figures "$0.355" and "$0.31" and inserting therefor the figure "$0.385."

13. Change paragraph (a) (6) of § 70.141 by deleting the figures "$6.60" and "$5.60" and inserting therefor the figure "$7.70."

14. Change the last sentence of § 70.381 to read as follows: "When the grade mark is applied to an individual carcass which is not individually packaged and labeled, the information with respect to the class of the poultry shall be included in the same label which bears the grade mark and the plant number or the firm name and address shall also be included on the label which bears the grade mark: *Provided*, That if the plant number does not appear on such label, it shall be shown on the giblet wrapper and packed with the carcass".

(60 Stat. 1090; 7 U. S. C. 1624)

Issued at Washington, D. C., this 25th day of June 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4966; Filed, June 27, 1958; 8:54 a. m.]

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**Subchapter D—Regulations Under the Poultry Products Inspection Act**

## PART 81—INSPECTION OF POULTRY AND POULTRY PRODUCTS

### INSTALLATION OF SERVICE

The regulations governing the inspection of poultry and poultry products (7 CFR Part 81) are amended as hereinafter set forth pursuant to authority contained in the Poultry Products Inspection Act (71 Stat. 441; 21 U. S. C. 451 et seq.).

The amendment sets forth a policy and procedure statement with respect to the installation of inspection service during the voluntary period for receiving service under the Poultry Products Inspection Act.

It is hereby found that it would be impracticable, unnecessary and contrary to the public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or to delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that: (1) This amendment is a statement of policy and procedure with respect to the installation of service during the permissive phase of the program under the act; (2) the amendment does not impose an obligation on any person; (3) additional time is not required to comply with this amendment; and (4) it is important that the industry be promptly informed with respect thereto.

The amendment is as follows:

1. Delete the period at the end of paragraph (h) of § 81.14 and insert a colon and the following language: "*Provided, however*, That during 1958 final determination as to installation of service will be held in abeyance with respect to any establishment currently denied, or suspended from, the benefits of poultry or poultry products inspection service under the Agricultural Marketing Act of 1946 (7 U. S. C. 1621 et seq.) or where proceedings have been instituted against it for denial of such inspection service under said Act until after the expiration of any such denial or suspension, or the final determination of any such proceeding or January 1, 1959, whichever is earlier."

(Sec. 14, 71 Stat. 447; 21 U. S. C. 463)

Issued this 25th day of June 1958, to become effective upon publication in the FEDERAL REGISTER.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4958; Filed, June 27, 1958; 8:52 a. m.]

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## PART 81—INSPECTION OF POULTRY AND POULTRY PRODUCTS

### MISCELLANEOUS AMENDMENTS

The regulations governing the inspection of poultry and poultry products (7 CFR Part 81) are amended as hereinafter set forth pursuant to authority contained in the Poultry Products Inspection Act (71 Stat. 441; 21 U. S. C. 451 et seq.).

The amendment increases the hourly rate for overtime inspection costs from $5.00 to $5.40 and makes other minor changes in the inspection program.

It is hereby found that it would be impracticable, unnecessary, and contrary to the public interest to give preliminary notice and engage in public rule making procedures with respect to this amendment or delay the effective date of the amendment until thirty (30) days after publication in the FEDERAL REGISTER for the reasons that (1) recently enacted legislation increases salaries of Federal employees resulting in increased costs for performing inspection service and the cost of overtime inspection is required by the Poultry Products Inspection Act to be paid for by applicants for such service; (2) the facts upon which the determinations with respect to charges necessary to cover overtime and holiday inspection costs are not available to the industry, but are peculiarly within the knowledge of the Department; (3) other changes in the regulations are of a minor nature and are relieving restrictions; and (4) additional time is not required to comply with this amendment.

The amendment is as follows:

1. Change § 81.14 (a) (2) to read as follows:

(2) Four copies of drawings or blueprints showing the features specified herein shall be submitted to the Administrator. The drawings or blueprints shall be legible, made with sharp, clear lines, be properly drawn to scale, and shall consist of floor plans and a plot plan.

2. Change paragraph (c) (2) of § 81.92 to read as follows:

(2) Kerosene, fuel oil or used crank case oil, or

3. Add the following sentence to § 81.98: "The charges for such frivolous appeal shall be at the rate of $5.40 per hour for the time required to make the appeal inspection."

4. Change paragraph (b) of § 81.118 to read as follows:

(b) Each export certificate shall be issued in quadruplicate; the original and duplicate shall be delivered to the shipper who requested such certificate, and the duplicate shall be delivered by him to the agent of the railroad or other carrier transporting such product from the United States otherwise than by water, or to the Chief Officer of the vessel on which the export shipment is made. The triplicate copy of such export certificate shall be filed in the office of the Area Supervisor serving the area in which such export certificate was issued. The quadruplicate copy shall be retained by the inspector for filing. The inspector issuing an export certificate is authorized to furnish additional copies of such certificate upon the request of an interested party.

5. Add the following sentence to paragraph (a) of § 81.121: "Any inspector is authorized to issue a poultry inspection certificate with respect to any poultry product inspected by him."

6. Change paragraph (b) of § 81.121 to read as follows:

(b) The original and one copy of each poultry inspection certificate shall be issued to the applicant who requested such certificate, one copy shall be forwarded to the Area Supervisor, and one copy shall be retained by the inspector for filing. The inspector who issues any inspection certificate is authorized to furnish an additional copy of such certificate upon the request of an interested party.

7. Delete the words "same label" in the third sentence in § 81.129 and insert in lieu thereof the words "labeling material."

8. Change paragraph (a) (6) of § 81.130 to read as follows:

(6) The plant number of the official establishment in which the product was inspected, either within the official inspection mark or clearly visible and in close proximity elsewhere on the exterior of the container, or in the case of canned product, the plant number may be embossed on the lid of each can. In the case of nontransparent consumer packages such as cartons, the plant num-

ber may be legibly printed thereon or it may be shown on an insert label placed on top of the product within the package. In the case of transparent wrappers, the plant number may be shown on an insert label and so placed under the transparent covering that it will be clearly visible and legible.

9. Delete "$5.00" in § 81.170 and insert in lieu thereof "$5.40."

10. Change "$5.00" wherever it appears in § 81.171 to read $5.40".

(Sec. 14, 71 Stat. 447; 21 U. S. C. 463)

Issued this 25th day of June 1958, to become effective on July 1, 1958.

[SEAL] ROY W. LENNARTSON,
*Deputy Administrator,*
*Agricultural Marketing Service.*

[F. R. Doc. 58-4967; Filed, June 27, 1958; 8:54 a. m.]

## Chapter IX—Agricultural Marketing Service (Marketing Agreements and Orders), Department of Agriculture

### PART 900—GENERAL REGULATIONS

SUBPART—RULES OF PRACTICE AND PROCEDURE GOVERNING PROCEEDINGS TO FORMULATE MARKETING AGREEMENTS AND MARKETING ORDERS

MISCELLANEOUS AMENDMENTS

By virtue of the authority vested in the Secretary of Agriculture by Public Act No. 10, 73d Congress, as amended, and as reenacted by the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and by Executive Order No. 10199, Dec. 22, 1950 (15 F. R. 9217), the Rules of Practice and Procedure governing proceedings to formulate marketing agreements and marketing orders are hereby amended as follows:

1. Delete § 900.2 (e) and insert in lieu thereof the following:

(e) The term "Deputy Administrator" means any Deputy Administrator of the Agricultural Marketing Service of the Department or any officer or employee of the Department to whom authority has heretofore lawfully been delegated, or to whom authority may hereafter lawfully be delegated to act in his stead.

2. Delete § 900.12 (c) and insert in lieu thereof the following:

(c) *Exceptions to recommended decision.* Immediately following the filing of his recommended decision the Deputy Administrator shall give notice thereof, and opportunity to file exceptions thereto by publication in the FEDERAL REGISTER. Within a period of time specified in such notice any interested person may file with the hearing clerk exceptions to the Deputy Administrator's proposed marketing agreement or marketing order, or both, as the case may be, and a brief in support of such exceptions. Such exceptions shall be in writing, shall refer, where practicable, to the related pages of the transcript and may suggest appropriate changes in the proposed marketing agreement or marketing order.

3. Delete § 900.14 (e) and insert in lieu thereof the following:

(e) *Notice of issuance.* After issuance of a marketing order, such order shall be filed with the hearing clerk, and notice thereof, together with notice of the effective date, shall be given by publication in the FEDERAL REGISTER. (7 U. S. C. 610 (c).)

(Sec. 10, 48 Stat. 37, as amended; 7 U. S. C. 610)

Done at Washington, D. C., this 24th day of June 1958, to be effective on and after publication in the FEDERAL REGISTER.

[SEAL] DON PAARLBERG,
*Assistant Secretary.*

[F. R. Doc. 58-4959; Filed, June 27, 1958; 8:52 a. m.]

[Valencia Orange Reg. 142]

### PART 922—VALENCIA ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

LIMITATION OF HANDLING

§ 922.442 *Valencia Orange Regulation 142*—(a) *Findings.* (1) Pursuant to the marketing agreement and Order No. 22, as amended (7 CFR Part 922), regulating the handling of Valencia oranges grown in Arizona and designated part of California, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.; 68 Stat. 906, 1047), and upon the basis of the recommendations and information submitted by the Valencia Orange Administrative Committee, established under the said marketing agreement and order, as amended, and upon other available information, it is hereby found that the limitation of handling of such Valencia oranges as hereinafter provided will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication hereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The committee held an open meeting during the current week, after giving due notice thereof, to consider supply and market conditions for Valencia oranges and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein were promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such Valencia oranges; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject hereto which cannot be completed on or before the effective date hereof. Such committee meeting was held on June 26, 1958.

(b) *Order.* (1) The respective quantities of Valencia oranges grown in Arizona and designated part of California which may be handled during the period beginning at 12:01 a. m., P. s. t., June 29, 1958, and ending at 12:01 a. m., P. s. t., July 6, 1958, are hereby fixed as follows:

(i) District 1: Unlimited movement;

(ii) District 2: 693,000 cartons;

(iii) District 3: Unlimited movement.

(2) All Valencia oranges handled during the period specified in this section are subject also to all applicable size restrictions which are in effect pursuant to this part during such period.

(3) As used in this section, "handled," "handler," "District 1," "District 2," "District 3," and "carton" have the same meaning as when used in said marketing agreement and order, as amended.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: June 27, 1958.

[SEAL] FLOYD F. HEDLUND,
*Acting Director, Fruit and Vegetable Division, Agricultural Marketing Service.*

[F. R. Doc. 58-5022; Filed, June 27, 1958; 11:13 a. m.]

[Lemon Reg. 745]

### PART 953—LEMONS GROWN IN CALIFORNIA AND ARIZONA

LIMITATION OF HANDLING

§ 953.852 *Lemon Regulation 745*—(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 53, as amended (7 CFR Part 953), regulating the handling of lemons grown in California and Arizona, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.; 68 Stat. 906, 1047), and upon the basis of the recommendation and information submitted by the Lemon Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such lemons as hereinafter provided will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice,

engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication hereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based becomes available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The Committee held an open meeting during the current week, after giving due notice thereof, to consider supply and market conditions for lemons and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein were promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such lemons; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject hereto which cannot be completed on or before the effective date hereof. Such committee meeting was held on June 25, 1958.

(b) *Order.* (1) The respective quantities of lemons grown in California and Arizona which may be handled during the period beginning at 12:01 a. m., P. s. t., June 29, 1958, and ending at 12:01 a. m., P. s. t., July 6, 1958, are hereby fixed as follows:

(i) District 1: Unlimited movement;

(ii) District 2: 325,500 cartons;

(iii) District 3: Unlimited movement.

(2) As used in this section, "handled," "District 1," "District 2," "District 3," and "carton" have the same meaning as when used in the said amended marketing agreement and order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: June 26, 1958.

[SEAL] S. R. SMITH,
*Director, Fruit and Vegetable Division, Agricultural Marketing Service.*

[F. R. Doc. 58-5002; Filed, June 27, 1958; 9:24 a. m.]

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## PART 966—MILK IN SHREVEPORT, LOUISIANA, MARKETING AREA

### ORDER AMENDING ORDER

§ 966.0 *Findings and determinations.* The findings and determinations hereinafter set forth are supplementary and in addition to the findings and determinations previously made in connection with the issuance of the aforesaid order and of the previously issued amendments thereto; and all of the said previous findings and determinations are hereby ratified and affirmed, except insofar as such findings and determinations may be in conflict with the findings and determinations set forth herein.

(a) *Findings upon the basis of the hearing record.* Pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and the applicable rules of practice and procedure governing the formulation of marketing agreements and marketing orders (7 CFR Part 900), a public hearing was held upon certain proposed amendments to the tentative marketing agreement and to the order regulating the handling of milk in the Shreveport, Louisiana, marketing area. Upon the basis of the evidence introduced at such hearing and the record thereof, it is found that:

(1) The said order as hereby amended, and all of the terms and conditions thereof, will tend to effectuate the declared policy of the act;

(2) The parity prices of milk, as determined pursuant to section 2 of the act, are not reasonable in view of the price of feeds, available supplies of feeds, and other economic conditions which affect market supply and demand for milk in the said marketing area, and the minimum prices specified in the order as hereby amended, are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk, and be in the public interest;

(3) The said order as hereby amended, regulates the handling of milk in the same manner as, and is applicable only to persons in the respective classes of industrial or commercial activity specified in, a marketing agreement upon which a hearing has been held.

(b) *Additional findings.* (1) It is necessary in the public interest to make this order amending the order effective not later than July 1, 1958.

(2) The provisions of the said order are known to handlers. The recommended decision of the Deputy Administrator of the Agricultural Marketing Service was issued June 10, 1958, and the decision of the Assistant Secretary containing all amendment provisions of this order issued June 20, 1958. The changes effected by this order will not require extensive preparation or substantial alteration in method of operation for handlers. In view of the foregoing, it is hereby found and determined that good cause exists for making this order amending the order effective July 1, 1958, and that it would be contrary to the public interest to delay the effective date of this amendment for 30 days after its publication in the FEDERAL REGISTER. (See section 4 (c), Administrative Procedure Act, 5 U. S. C. 1001 et seq.)

(c) *Determinations.* It is hereby determined that:

(1) The refusal or failure of handlers (excluding cooperative associations specified in section 8c (9) of the act) of more than 50 percent of the milk, which is marketed within the marketing area, to sign a proposed marketing agreement, tends to prevent the effectuation of the declared policy of the act;

(2) The issuance of this order, amending the order, is the only practical means pursuant to the declared policy of the act of advancing the interests of producers as defined in the order as hereby amended; and

(3) The issuance of the order amending the order is approved or favored by at least two-thirds of the producers who during the determined representative period were engaged in the production of milk for sale in the marketing area.

*Order relative to handling.* The order is hereby amended as follows:

1. Delete § 966.51 (a) and substitute the following:

(a) *Class I milk price.* Through June 30, 1960, the minimum price shall be the basic formula price for the preceding month plus $2.00 for each of the months March, April, May and June, and plus $2.40 for all other months; and

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Issued at Washington, D. C., this 25th day of June 1958, to be effective on and after the 1st day of July 1958.

[SEAL] DON PAARLBERG,
*Assistant Secretary.*

[F. R. Doc. 58-4976; Filed, June 27, 1958; 8:52 a. m.]

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## PART 1017—ONIONS GROWN IN CERTAIN DESIGNATED COUNTIES IN IDAHO AND MALHEUR COUNTY, OREG.

### LIMITATION OF SHIPMENTS

§ 1017.303 *Limitation of shipments*—(a) *Findings.* (1) Pursuant to Marketing Agreement No. 130 and Order No. 117 (7 CFR Part 1017) regulating the handling of onions grown in certain designated counties in Idaho and Malheur County, Oregon, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (48 Stat. 31, as amended; 7 U. S. C. 601 et seq.; 68 Stat. 906, 1047), and upon the basis of the recommendations and information submitted by the Idaho-Eastern Oregon Onion Committee, established pursuant to said marketing agreement and order, and upon other available information, it is hereby found that the limitation of shipments, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby found that it is impracticable, unnecessary, and contrary to the public interest to give preliminary notice and engage in public rule making procedure, and that good cause exists for not postponing the effective date of this section for 30 days or any other period beyond the date specified (5 U. S. C. 1001 et seq.) in that (i) the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, (ii) more orderly marketing in the public interest, than would otherwise prevail, will be promoted

by regulating the shipment of onions, in the manner set forth below, on and after the effective date of this section, (iii) compliance with this section will not require any special preparation on the part of handlers which cannot be completed by the effective date, (iv) reasonable time is permitted under the circumstances for such preparation, and (v) information regarding the committee's recommendations has been made available to producers and handlers in the production area.

(b) *Order.* During the period from July 1, 1958, through June 30, 1959:

(1) Except as otherwise provided in this section, no handler may handle onions of the yellow or brown varieties unless such onions are of a size 2 inches in diameter, or larger (including, but not being limited to, onions that are "medium" in size and onions that are "jumbo" or "large" in size), including the tolerances for size as specified in the United States Standards for Northern Grown Onions (§§ 51.2830 to 51.2847 of this title);

(2) Each handler may make one shipment of less than one ton per day without regard to the inspection requirements of this part; and

(3) Yellow or brown varieties of onions may be handled for the following purposes without regard to the regulatory, assessment and inspection requirements of this part: (i) Export; (ii) relief or charity; (iii) livestock feed; or (iv) planting.

(4) Except as otherwise provided in this section, terms used in this section shall have the same meaning as when used in Marketing Agreement No. 130 and Order No. 117 (7 CFR Part 1017). The term diameter shall have the same meaning as set forth for such term in the United States Standards for Northern Grown Onions (§§ 51.2830 to 51.2847 of this title); and terms "medium," "jumbo," and "large" shall each have the following meanings: (i) "Medium" means, and relates to, onions that are within a diameter range of 2 inches to 3⅛ inches; and (ii) "jumbo" and "large" each mean, and relate to, onions that are 3 inches, or larger, in diameter.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: June 25, 1958.

[SEAL] S. R. SMITH,
*Director,*
*Fruit and Vegetable Division.*

[F. R. Doc. 58-4963; Filed, June 27, 1958; 8:53 a. m.]

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PART 1020—APRICOTS GROWN IN DESIGNATED COUNTIES IN WASHINGTON

CONTAINER EXEMPTION

On May 3, 1958, notice of proposed rule making was published in the FEDERAL REGISTER (23 F. R. 2988) regarding the establishment of a container exemption procedure pursuant to the marketing agreement and Order No. 120 (7 CFR Part 1020; 22 F. R. 3514) regulating the handling of apricots grown in designated counties in Washington, effective under applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.).

After consideration of all relevant matters presented, including the proposal set forth in the aforesaid notice, which was submitted by the Washington Apricot Marketing Committee (established pursuant to the said marketing agreement and order as the agency to administer the provisions thereof), it is hereby found that the establishment of such procedure is in accordance with the provisions of the said marketing agreement and order and will tend to effectuate the declared purposes of the Agricultural Marketing Agreement Act of 1937, as amended. Therefore, establishment of such procedure in the rules and regulations of the said committee is hereby approved as follows:

§ 1020.110 *Container exemption.* Whenever container limitations are effective pursuant to § 1020.52, a handler may make test shipments of apricots in experimental containers, approved by the committee, subject to the following:

(a) Test shipments shall be made only in connection with a container research project, or projects, being conducted by or in cooperation with the Washington Apricot Marketing Committee.

(b) The handler shall first make application to, and receive a permit from, the Washington Apricot Marketing Committee on a form of the committee to handle each experimental container proposed to be used by the handler for test shipments. Such application shall contain the following information:

(1) Name and address of the applicant and date of application;

(2) Description of the container, including size, weight, inside dimensions, and type of pack;

(3) Quantity of such containers proposed to be shipped.

(c) Approval of the application shall be evidenced by the issuance to the applicant by the committee of a permit which shall authorize the handling of apricots in such quantity of experimental containers as the committee may approve.

(d) With respect to each test shipment of apricots handled in experimental containers, the handler shall, prior to such handling, advise the committee as to (1) the number and type of the container or containers in the test shipment, (2) identification of the carrier, (3) name and address of the receiver, and (4) expected time of arrival at destination.

It is hereby further found that it is impracticable and contrary to the public interest to postpone the effective date hereof until 30 days after publication in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) and good cause exists for making the provisions hereof effective not later than the date of such publication, in that (1) shipments of apricots will begin on or about June 23, 1958, and such shipments will be subject to container limitations prescribed pursuant to Apricot Order 2, as amended; (2) establishment of the procedure set forth herein is necessary to effectuate container research as it provides a method whereby containers other than those prescribed pursuant to said Apricot Order 2 may be tested under commercial shipping conditions; (3) the apricot shipping season will end about mid-September, hence, such procedure should be made effective as near the beginning of such season as possible to provide the maximum opportunity during such season for the conduct of container research; (4) handlers of apricots have been advised of the proposed establishment of the said procedure; (5) it is necessary, in order to effectuate the declared policy of the act to make the provisions hereof effective at the time hereinafter set forth; and (6) the procedure hereby established will not require any preparation which cannot be completed by the effective time hereof.

Terms used herein shall have the same meaning as when used in said marketing agreement and order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: June 24, 1958, to become effective upon publication in the FEDERAL REGISTER.

[SEAL] S. R. SMITH,
*Director, Fruit and Vegetable Division, Agricultural Marketing Service.*

[F. R. Doc. 58-4934; Filed, June 27, 1958; 8:48 a. m.]

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# TITLE 10—ATOMIC ENERGY

## Chapter I—Atomic Energy Commission

PART 40—CONTROL OF SOURCE MATERIAL

ELIMINATION OF PROHIBITION ON CERTAIN USES OF URANIUM

The regulations in Part 40, "Control of Source Material", 10 CFR, contain a provision that unless justified by exceptional circumstances, licenses will not be issued for transfers of uranium for use in the manufacture of or for incorporation in ceramic products, glass products, or photographic film, negatives and prints (§§ 40.28 and 40.61). This restriction on the use of uranium was promulgated as a means of conserving the supply of uranium for essential uses.

At the present time the supply of uranium is such that it is no longer deemed necessary or appropriate to continue this restriction in effect.

Inasmuch as this amendment is intended to relieve from, rather than to impose, restrictions under regulations currently in effect, the AEC has found that general notice of proposed rule making and public procedures thereon are unnecessary and that good cause exists why this amendment should be made effective without the customary period of notice.

Part 40 is amended in the following respects:

1. Section 40.28 *Licenses to transfer uranium for certain uses* is deleted.

2. Section 40.61 *Schedule II: Prohibited uses of uranium (see § 40.28)* is deleted.

Dated at Germantown, Md., this 19th day of June 1958.

For the Atomic Energy Commission.

R. W. COOK,
*Deputy General Manager.*

[F. R. Doc. 58-4945; Filed, June 27, 1958; 8:50 a. m.]

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PART 112—HARDTACK NUCLEAR TEST SERIES, 1958

MISCELLANEOUS AMENDMENTS

On June 26, 1958, the Atomic Energy Commission issued public notice of the danger area to be established July 25, 1958, in connection with the forthcoming phase of the HARDTACK nuclear test series to be conducted in the area surrounding Johnston Island. The efficient and early completion of this test series, the initial phase of which is currently in progress at the Eniwetok Proving Ground in the Marshall Islands, is of major importance to the defense of the United States and of the free world.

To avoid any unnecessary delay or interruption of this test activity, and to protect the health and safety of the public, the Atomic Energy Commission is issuing the following amendments to Part 112, which amendments will be effective until the HARDTACK test series is completed.

In view of the relationship of these tests to the national defense, the potential hazard to the health and safety of individuals who enter the danger area, and the early starting date of the tests, the Atomic Energy Commission has found that general notice of proposed rule making and public procedure thereon would be contrary to the public interest; and that good cause exists why these rules should be made effective without the customary period of notice.

Pursuant to the Administrative Procedure Act, Public Law 404, 79th Congress, 2d Session, the following amendments are published as a document subject to codification, to be effective upon filing with the FEDERAL REGISTER.

1. Section 112.3 is amended as follows:

§ 112.3 *Definitions:* As used in this part:

(a) "Danger area" means the following:

(1) That area established, effective April 5, 1958, encompasing the Bikini and Eniwetok Atolls, Marshall Islands and which is bounded by a line joining the following geographic coordinates:

18°30' N., 156°00' E.
18°30' N., 170°00 E.
11°30' N., 170°00 E.
11°30' N., 166°16' E.
10°15' N., 166°16' E.
10°15' N., 156°00' E.

(2) That area established, effective July 25, 1958, encompassing Johnston Island and which is a circle of 400 nautical miles radius centered at the following geographic coordinates: longitude 169° 31'00" West and latitude 16°45'00" North.

(b) "HARDTACK test series" means that series of nuclear tests conducted and to be conducted by the Atomic Energy Commission and the Department of Defense at the Eniwetok Proving Ground and at Johnston Island, within the danger areas as defined in paragraph (a) of this section, which tests began in April 1958 and will end at an announced time during the calendar year 1958.

2. Section 112.4 is amended as follows:

§ 112.4 *Prohibition.* No United States citizen or other person who is within the scope of this part shall enter, attempt to enter, conspire to enter or remain in either of the defined danger areas (§ 112.3 (a)) during the continuation of the HARDTACK test series, except with the express approval of appropriate officials of the Atomic Energy Commission or the Department of Defense.

3. The part head of this part is hereby amended to read as set forth above.

(Sec. 161, 68 Stat. 948, as amended; 42 U. S. C. 2201. Interpret or apply secs. 2, 3, 91, 68 Stat. 921, as amended, 922, 936; 42 U. S. C. 2012, 2013, 2121. For the purposes of sec. 223, 68 Stat. 958; 42 U. S. C. 2273, § 112.4 issued under sec. 1611, 68 Stat. 949, 42 U. S. C. 2201 (i))

Dated at Germantown, Md., this 25th day of June 1958.

For the Atomic Energy Commission.

K. E. FIELDS,
*General Manager.*

[F. R. Doc. 58-4983; Filed, June 26, 1958; 2:00 p. m.]

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# TITLE 47—TELECOMMUNICATION

## Chapter I—Federal Communications Commission

[Docket No. 11959; FCC 58-603 (Corrected)]

[Rules Amdt. 2-22]

PART 2—FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

REALLOCATION OF CERTAIN FIXED, LAND MOBILE, AND MARITIME MOBILE BANDS

1. On April 3, 1957, the Commission adopted a Notice of Proposed Rule Making in the above entitled matter which was released on April 9, 1957, and published in the FEDERAL REGISTER of April 16, 1957 (22 F. R. 2583). A correction to the Notice adding footnote designators to certain specified frequency bands was released on April 11, 1957, and published in the FEDERAL REGISTER of April 26, 1957 (22 F. R. 2956). The First Memorandum Report and Order in this Docket, which applied only to the land transportation and maritime mobile services in the 152–162 Mc band, was adopted by the Commission on April 9, 1958, and published in the FEDERAL REGISTER on April 15, 1958 (23 F. R. 2424). A corrected copy of the Order was published in the FEDERAL REGISTER on April 19, 1958 (23 F. R. 2601). The Second Memorandum Report and Order in this Docket, which implemented "split channel" proposals for the public safety radio service in the 150.8–162 Mc and 450–460 Mc bands for the remaining services in the 150.8–162 Mc band, was adopted by the Commission on May 8, 1958, and published in the FEDERAL REGISTER on May 17, 1958 (23 F. R. 3351).

2. This Order is intended to dispose of the remaining proposals in Docket 11959 except as noted below. The exceptions will be dealt with at a later date. It should be noted that, in the amendments set forth below now being effected in Part 2 of the Commission's rules, listing of the frequency bands 455–456 Mc, 460–461 Mc, 462.525–463.225 and 465.275–463.475 Mc is merely to reflect the present frequency allocation and is not to be construed as finalization of the Commission's outstanding proposals in Docket 11959 to reallocate the frequency bands 455–456 Mc and 460–461 Mc to the domestic public service, and the bands 462.525–463.225 and 465.275–466.475 Mc to the industrial service. Additionally no action is being taken at this time with respect to the proposal to reallocate the 26.96–27.23 Mc amateur band to citizens radio service. Other portions of the proposal, involving reallocation of the frequency bands indicated in the attached appendix from the citizens radio service to the industrial radio services are being finalized by this Order and by a companion proceeding (Docket 11991).

3. As explained in the Second Memorandum Report and Order in this docket, band edge frequencies will henceforth be indicated in column 7 of the Part 2 table of frequency allocations for each kind of service or station shown in column 11 for the land mobile service above 50 Mc., in lieu of indicating specific assignable frequencies in column 10 of the table. Thus, provision for the assignment to the land mobile service of both evenly spaced "split channel" frequencies for regular operation and randomly spaced frequencies for narrow band developmental operation above 50 Mc under certain conditions will be inherent in the table.

4. Comments opposing the Commission's proposal to reallocate most of the 460–470 Mc band from the Citizens Radio Service to the Industrial Radio Services were received from the Vocaline Company of America, Kaar Engineering Corporation, and Mr. W. I. Abbott. The comments of the Vocaline Company and Mr. Abbott claim that the proposed "unrealistic" technical standards will "kill off" the Citizens Radio Service. Inasmuch as the substance of these comments is fully discussed in the appropriate companion Order (Docket 11991) of the same date, duplicate or further discussion of the issues involved herein appears unnecessary. It is emphasized that the 460–461 Mc, 462.525–463.225 Mc, and 465.275–466.475 Mc portions of the present 460–470 Mc Citizens Radio band will probably be reallocated at a later date even though the attached appendix reflects no concurrent change in the allocation of these portions of the band to the Citizens Radio Service. Based on considerations discussed in the above mentioned Order in Docket 11991, the Citizens Radio Service will be permitted to share with the Industrial Radio Service, at least for the time being, the 463.225–464.725 Mc band and the 466.475–467.475 Mc portion of the 466.475–470 Mc band.

5. The First Memorandum Report and Order in this docket changed the lower

limit of the maritime mobile band 161.85–162 Mc to 161.825 Mc thus providing a 50 kc channel at 161.85 Mc for assignment to coast stations. Footnote NG35 allocates the band 161.40–161.85 Mc to fixed stations only in Puerto Rico and the Virgin Islands. Therefore, the frequency 161.85 Mc is unavailable, as proposed, for assignment to the Maritime Mobile Service in Puerto Rico and the Virgin Islands as indicated by new footnote NG56 shown below.

6. At the present time remote pickup stations in Puerto Rico may use frequencies in the band 159.48–160.02 Mc on a shared basis with the Railroad Radio Service. Rules proposed in Docket 11992 would expand the new Motor Carrier Radio Service into this band thereby making impractical the continued sharing of the band by remote pickup broadcast stations in Puerto Rico. Therefore, it was proposed in said Docket 11992 and in this docket to delete the above mentioned sharing arrangement and substitute therefor the provision for the use of the frequency band 160.86–161.40 Mc by remote pickup stations in Puerto Rico and the Virgin Islands on a shared basis with the Railroad Radio Service (Land Transportation Radio Services). No comment was received with respect to this proposal and it is hereby adopted.

7. The Commission's Notice in this docket proposed that frequencies made assignable by reducing channel spacing from 60 to 30 kc in the 152.24–152.48 Mc and 157.45–157.74 Mc bands be assigned exclusively to the Industrial Radio Service for use outside standard metropolitan areas of 50,000 or more population. No comment was received with respect to this proposal and it is hereby adopted.

8. In view of the foregoing, the Commission finds that the public interest, convenience and necessity will be served by the amendments herein ordered and, pursuant to authority contained in sections 4 (i) and 303 of the Communications Act of 1934, as amended,

9. *It is ordered*, That Remote Pickup stations in Puerto Rico authorized as of August 1, 1958, to operate in the frequency band 159.48–160.0 Mc may continue to operate in this band until their current licenses expire. No new Remote Pickup stations will be authorized to use this band in Puerto Rico but, in lieu thereof, applicants for such stations in Puerto Rico and the Virgin Islands may be assigned frequencies in the 160.86–161.40 Mc band on a shared basis with the Land Transportation Radio Service;

10. *It is further ordered*, That effective August 1, 1958, Part 2 of the Commission's rules, Frequency Allocations and Radio Treaty Matters; general rules and regulations, is hereby amended as set forth below.

(Sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interprets or applies sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303)

Adopted: June 18, 1958.

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

No. 127—Part I——3

1. In the table of frequency allocations, § 2.104 (a) (5), change the entries in the bands shown below between 152.24 and 173.4 Mc and between 450 and 470 mc in columns 7 through 11 to read as follows:

| Band Mc<br>7 | Service<br>8 | Class of station<br>9 | Frequency<br>10 | Nature of services (of stations)<br>11 |
|---|---|---|---|---|
| 152.24–152.48 (NG1) (NG22) (NG57) | Land mobile. | a. Base.<br>b. Land mobile. | | LAND TRANSPORTATION. |
| 157.45–157.74 (NG1) (NG22) (NG57) | Land mobile. | a. Base.<br>b. Land mobile. | | LAND TRANSPORTATION. |
| 173.2–173.4 (NG1) | a. Fixed.<br>b. Land mobile. | a. Base.<br>b. Fixed.<br>c. Land mobile. | | INDUSTRIAL. |
| 450–451 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | a. Remote pickup broadcast base;<br>b. Remote pickup broadcast mobile. |
| 451–452 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | INDUSTRIAL. |
| 452–453 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | LAND TRANSPORTATION. |
| 454–455 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | DOMESTIC PUBLIC. |
| 455–456 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | a. Remote pickup broadcast base;<br>b. Remote pickup broadcast mobile. |
| 456–457 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | INDUSTRIAL. |
| 457–458 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | LAND TRANSPORTATION. |
| 459–460 (NG1) (NG22) | Land mobile. | a. Base.<br>b. Land mobile. | | DOMESTIC PUBLIC. |
| 460–461 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | CITIZENS. |
| 461–462.525 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | INDUSTRIAL. |
| 462.525–463.225 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | CITIZENS. |
| 463.225–464.725 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | INDUSTRIAL CITIZENS. |
| 464.725–466.475 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | CITIZENS. |
| 466.475–470 (NG1) | Land mobile. | a. Base.<br>b. Land mobile. | | INDUSTRIAL CITIZENS (NG58). |

2. Amend footnote NG40 to read as follows:

NG40 The frequency band 160.86–161.40 Mc is available for assignment to remote pickup base and remote pickup mobile stations in Puerto Rico and the Virgin Islands only, on a shared basis with the Land Transportation Radio Service.

3. Add new footnotes NG56, NG57, and NG58 to read as follows:

NG56 The frequency 161.85 Mc is not available for assignment to the Maritime Mobile Service in Puerto Rico or the Virgin Islands.

NG57 Frequencies 152.30, 152.36, 152.42, 157.56, 157.62 and 157.68 Mc may be assigned exclusively to the Industrial Radio Service outside standard metropolitan areas of 50,000 or more population.

NG58 Citizens Radio Service operations may be authorized only in the 466.475–467.475 Mc portion of this band.

[F. R. Doc. 58-4853; Filed, June 27, 1958; 8:45 a. m.]

[Docket No. 12169]

PART 11—INDUSTRIAL RADIO SERVICES

CHANGES IN AVAILABILITY OF FREQUENCIES

In the matter of amendments of Parts 2, 6, 7, 8, 9, 10, 11 and 16 of the Commission's rules to reduce separation between assignable frequencies in the 42–50 Mc band, to effect changes in the 25–50 Mc and 150.8–152 Mc bands, and to effect other changes relating to the use of frequencies in the 25-50 Mc band.

The Commission having under consideration the First Report and Order in the above-entitled matter (FCC 57–1393) adopted December 18, 1957; and

It appearing that, by virtue of the above First Report and Order, Parts 2, 6, 7, 8, 9, 10, 11 and 16 of the Commission's rules were amended in the respects described and set forth therein; and

It further appearing that, although the formal codification of the rules-changes for Part 2 were appended to the said First Report and Order, such codification for Parts 6, 7, 8, 9, 10, 11, and 16 was to be accomplished by subsequent order of the Commission; and

It further appearing that, the Commission has this day adopted a First Report and Order in Docket No. 11991 which amends Part 11 in many respects; and

It further appearing that, for its own convenience and for the convenience of persons eligible or licensed under Part 11, the aforementioned codification for Part 11 is accomplished in full to the said First Report and Order in Docket No. 11991, and that no beneficial purpose would be served by its repetition in the instant proceeding;

*It is ordered*, This 18th day of June, 1958, and pursuant to section 0.341 of the Commission's rules, that, to the extent that the above First Report and Order in Docket No. 11991 are directed to the codification of the rules-changes for Part 11 heretofore adopted herein, it is hereby incorporated by reference, as if fully set forth herein.[1]

(Sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154)

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4854; Filed, June 27, 1958; 8:45 a. m.]

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[Docket No. 11991; FCC 58-602]

[Rules Amdt. 11-15]

PART 11—INDUSTRIAL RADIO SERVICES

CHANGES IN AVAILABILITY OF FREQUENCIES

In the matter of amendment of Part 11, rules governing the Industrial Radio Services, to delete, modify and create Services, and to effect changes in the availability of frequencies.

*Background and Nature of Proceeding*

1. This proceeding was instituted by a Notice of Proposed Rule Making of April 3, 1957 (FCC 57-356—released April 9, 1957). The Notice provided for an original-comment date of June 10, 1957, and a reply-comment date of June 20, 1957. In subsequent Orders the Commission extended these dates and ultimately provided for an original-comment date of October 10, 1957, and a reply-comment date of November 12, 1957. Approximately 150 original and reply comments of all descriptions have been received in this proceeding. These comments, which range in length and scope from detailed, exhibit-supported documents of 100 pages or more to simple, one-page, supporting letters, have been carefully read and analysed by the Commission, and have been of incalculable assistance to the Commission in the disposition of the issues involved in this proceeding.[1]

2. For purposes of bringing the total picture of this Report and Order into sharper focus, a summary of some of the major accomplishments or rule changes hereinafter effected is here set forth. In brief, this Report and Order:

a. Reallocates 6.550 megacycles of space in the 460–470 Mc band from the Citizens Radio Service to the Industrial Radio Services.

b. Retains 2.450 megacycles of space in the 460–470 Mc band for the Citizens Radio Service. Of this space, 1.900 megacycles is earmarked for possible reallocation at a later date. Pending future developments, Class B Citizens Stations are extended the right to operate within a 4.950 Mc portion of the band centered approximately on 465 Mc.

c. Provides for the regular assignment of all Industrial frequencies in the 450–470 Mc band; reduces channel spacing in the latter band and in the 27.23–27.28 and 162–174 Mc bands; apportions and reapportions frequencies among the several subservices comprising the Industrial Radio Services

d. Establishes a Manufacturers Radio Service.

e. Retains the Special Industrial Radio Service in substantially modified form.

f. Combines the Low Power Industrial Radio Service, elements of the Special Industrial Radio Service and elements of the Citizens Radio Service into a new Business Radio Service.

g. Establishes a Telephone Maintenance Radio Service with eligibility for communications common carriers engaged in construction, maintenance or repair activities.

*Reallocation of 460–470 Mc Frequencies*

3. The Commission's Notice herein proposed that the 461–464.725 and 465.275–470 Mc segments of the 460–470 Mc band be reallocated from the Citizens Radio Service to the Industrial Radio Services. The most vigorous opposition to this proposal has been registered by Vocaline Company of America, Inc., a manufacturer of radio transceivers for Class B Citizens use.[2] Among its principal contentions can be listed the following: That, legitimately, the present proceeding should confine itself to an implementation of the Commission's Report and Order of September 19, 1956, in Docket No. 11253;[3] that Docket No. 11253, wherein new technical standards were adopted for the 25–50 and 50–1000 Mc bands, involved only the 152–162 Mc band insofar as actual channel-splitting is concerned; that Part 19 (Citizens Radio Service) was not involved in Docket No. 11253; that any reallocation of frequencies among the several services at this time would constitute a prejudgment of the issues and matters involved in Docket No. 11997[4]—the only proper forum for actions of the magnitude and importance here contemplated; that, in this connection, any reallocation of frequencies must be based upon comparative considerations developed by acceptable methods of proof and that a fair, equitable and efficient reallocation is precluded by the "piece-meal, ex parte, and summary" nature of the instant proceeding; that in proposing to reduce the Citizens allocation from 10 Mc to 0.55 Mc[5] and the permissible bandwidth of Class B stations from 4.65 Mc to 0.45 Mc, the Citizens Radio Service—particularly the Class B segment thereof—would be destroyed; and that nothing has transpired which warrants deviation from the original concept of the Citizens Radio Service contained in the Commission's Report of Proposed Allocation from 25,000 Kilocycles to 30,000,000 Kilocycles (January 15, 1945). Consistent with the foregoing, Vocaline urges that the proposals involved be abandoned. Alter-

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[1] See F. R. Document 58-4852, *infra*.

[1] The frequency allocation determinations arrived at herein should not be construed as being dispositive of allocation proposals on questions contained in or presented by other outstanding rule making proceedings.

[2] Under the present Citizens rules, Class B stations are permitted to occupy up to 4.65 Mc of space centered on the frequency 465 Mc. Such stations are limited in power to 10 watts input to the final radio frequency stage, and they are afforded no interference-protection from other Class B stations or from Class A stations operating in any portion of the 460–470 Mc band. Vocaline presently manufactures two type-approved models of radio transceivers, each of which is said to sell at under $100.00 per unit. Vocaline states that it has thus far sold in excess of 20,000 of the above units and that it is currently selling them at a rate of 2,000 per month. The principal market for these transceivers has been with small businesses, civic organizations, sportsmen, etc. having small-area communication requirements. Vocaline represents that it could modify its models so as to limit emission to plus or minus 1.5 Mc from the frequency 465 Mc with only a moderate increase in consumer-cost. It further states that equipment capable of meeting the emission limits (plus or minus 0.235 Mc) proposed in Docket No. 11994 would require a crystal controlled design; the increase in consumer-cost necessitated by such a modification is not specified—other than that it would be "substantial".

[3] FCC 56-901—adopted September 19 and released September 24, 1956.

[4] Statutory Inquiry into the Allocation of Frequencies to the Various Non-Governmental Services in the Radio Spectrum between 25 mcs and 890 mcs.

[5] Dockets 11959 and 11995 propose the reallocation of the 460–461 segment of the 460–470 Mc band from the Citizens Radio Service to the Domestic Public Radio Services.

natively it suggests that a segment of the 460–470 Mc band at least 3 Mc wide[6] should be allocated solely for the use of Class B Citizens stations, or that at least 3 Mc (and preferably 6 Mc) of the present 420–450 Mc Amateur band be reallocated for such use.

4. Vocaline and others, in this and other companion proceedings,[7] particularly object to the Commission's departure from its 1945 concept of the Citizens Radio Service, under which the frequency band 460–470 Mc was made available for Class A and Class B stations in that service. In part, the service was established with a view to providing for the requirements of individuals and of industrial and commercial enterprises for private, short distance radiocommunications. The development of the service, however, clearly establishes that the primary need and demand of Class A Citizens users has not been for such short distance communications; rather, more and more commercial and industrial enterprises—for whose activities adequate provision has not previously been made elsewhere in the Commission's rules—have turned to the Citizens Service in an effort to meet their long-range, mobile and point-to-point communication needs. Of approximately 140,000 transmitters currently authorized in the Citizens Radio Service, nearly half are estimated to be operated under Class A authorization and devoted to the above uses, while less than 15 percent or approximately 21,000 transmitters are estimated to be operated under Class B authorization.

5. The above-mentioned original (1945) concept of the Citizens Radio Service and the allocation of 10 Mc of space thereto were principally derived from (a) the then existing state of the radio art and the capabilities of the equipment then available; (b) the comparative needs, as they were then known, of the variety of persons and activities sought to be accommodated; and (c) the Commission's estimate of future growth within the services provided for. The actual growth and expansion of the various services in the intervening thirteen years, and the additional demand on every side for more radiocommunication channels, could not have been foreseen but are now too well known to need to be detailed here. In the Safety and Special Radio Services alone, authorizations now exceed 400,000, and these authorizations represent in excess of 1,200,000 transmitters. In comparison to the 36,000 authorizations, representing 140,000 transmitters, in the Citizens Radio Service there are in the Special Industrial Radio Service, alone, some 6,000 licensees operating in excess of 115,000 transmitters. It was one of the purposes of this proceeding to arrive at a more equitable division of frequency space between services, in the light of this proven use. It is recognized that much of the growth and expansion of the various services can be attributed to the enormous improvement which has been made in the performance capabilities of transmitters and receiving equipment—improvement that has opened the door to more efficient utilization of available spectrum space. Improved equipment-design has not been confined to the lower frequency (such as the 25-50 and 152-162Mc) bands, although it has progressed in that order. Equipment capable of reliable performance—occupying bandwidths of less than 50 kc—is readily available for use in the 450–470 Mc region, and is available for use by prospective licensees in the other services herein considered as well as in the Citizens Radio Service.

6. Notwithstanding that improved equipment-design has made reductions in seperations possible between presently-assignable frequencies in many of the Commission's frequency bands—and has consequently enabled an approximate doubling of frequencies in such bands—the immediate and anticipated demands of existing eligibles and other persons for whom more adequate provisions must be made ensures that no surplus of desirable spectrum space is likely to result, even in the 450–470 Mc range. Indeed, it was these immediate and anticipated demands which dictated that the Commission turn to the Citizens band as a source of frequencies for other (and possibly more protected) services. While the distinction between Class A Citizens radio stations and stations in the Business or Manufacturers Radio Services (hereinafter established) may appear one of name only, there clearly exists a difference in operating authority as well as in eligibility for license in the respective services and hence in the protection afforded a licensee operating in that service. In view of the action taken elsewhere herein with respect to the conditions under which Class B Citizens Radio stations may continue to be operated, the transfer of frequencies in the 460–470 Mc range from the Citizens Radio Service to the Industrial Services would appear to have a little if any practical effect on the operating privileges of Class B stations. The Commission realizes that with the transfer of frequencies between services, higher station powers will be permitted in the frequency range 462–468 Mc where severe limitations were previously placed on the power of Class A stations for the protection of Class B station operation. The Commission is firmly convinced, however, that such higher powered operations by other stations in that range must be accepted by the Class B stations since it believes that the frequency spectrum is too valuable a resource to reserve a portion nearly 6 Mc in extent for the relatively inefficient Class B use only.

7. Vocaline seems to contend that the Commission is here limited to an implementation of the decisions arrived at in Docket No. 11253. Although an important purpose of this proceeding is to effect such implementation, the Commission's primary purposes have been to take additional steps in the matters of creating additional frequency-channels for assignment in the Industrial services and of expanding eligibility for the benefit of large numbers of industrial and commercial enterprises. It is also contended that the issues joined herein by Vocaline should more properly be determined in the general inquiry in Docket No. 11997. With this latter proceeding, of course, the Commission did not intend to freeze or otherwise impede other proceedings dealing with individual services and allocations; on the contrary, it was specifically stated in the Notice in Docket No. 11997 that such proceedings would continue on an ad hoc basis. Vocaline urges (in effect) that frequency allocations must be arrived at on a comparative basis and that the instant "ex parte" proceedings precludes comparative consideration of the needs of Class B users. This argument is difficult to understand, particularly, in light of the fact that parties were not prohibited from including in their comments facts and data addressed to the question of comparative need—and certainly Vocaline's comments are replete with such information.

8. The substantive problems pointed up by the Vocaline comment and outlined above are not easily resolved. Although present trends of demand tend to support a view that virtually all Class B usage must eventually submit to the space-requirements of higher-priority applicants—particularly those in the Industrial services—a number of considerations would seem to warrant a relaxing of the proposals along lines more agreeable to Class B users. Prime among these considerations is the practical fact that, although a trend toward greater-coverage equipment in the band has been definitely established, the full consequences of the trend are not likely to be felt for several years. In this connection the Commission takes note of the facts that present loading in the band has not yet reached what might be termed the serious stage, and that a lower loading-rate can be expected by virtue of the large numbers of additional 25–50 and 150–172 Mc frequencies to which higher-priority users have and will have access. Not unrelated to the foregoing point is the consideration that substantial advantage can accrue to the Commission and its users by delaying commitment of all the 460–470 Mc space until the overall picture of needs and demands in the various Industrial services has adjusted itself in light of the new frequency-complements being established for such services. Further warrant for such a delay is afforded by proposals[8]—such as one by Aeronautical Radio, Inc.—that other needs be accommodated in the 450-470 Mc range. In arriving at what might be termed a compromise with respect to the various factors pertinent hereto, the Commission has given considerable weight to certain facts accented by Vocaline. Thus, the Commission is impressed with the remarkable rate of purchase of Class B units now available and the fact that many users have apparently found it economically more sound to pur-

[6] Vocaline's total Citizens allocation would consist of the 463.25–466.75 segment.

[7] Docket Nos. 11959 and 11994.

[8] In addition to the ARINC petition discussed in paragraph 8 and certain expressed needs in the Citizens and Industrial Radio Services, the Commission has received other proposals for disposition of space in this band.

chase less expensive equipment of small-area capabilities than to pay the premium for equipment of greater range.

9. Based upon the foregoing considerations, the Commission makes the following disposition of its proposals for the 460–470 Mc band:

a. A total of 6.550 megacycles (as opposed to the proposed 8.450 megacycles) is reallocated for use in the Industrial services. These 6.550 megacycles are comprised of the 461–462.525, 463.225–464.725 and 466.475–470 portions of the band.

b. As proposed, a total of 0.550 megacycles (consisting of the 464.725–465.275 Mc portion) of the band is being retained for use in the Citizens Radio Service.

c. With respect to a total of 1.900 megacycles (consisting of the 462.525–463.225 and 465.275–466.475 portions) of the band, the Commission is withholding a final determination at this time. Pending greater crystallization of the expressed and anticipated [*] needs for fixed and mobile operations in the frequency range 460–470 Mc, these 1.9 megacycles will continue to be allocated to the Citizens Radio Service for use therein. Until further disposition is made of this space, no licensee on the frequencies involved will be required to vacate as a direct result of actions taken herein. With respect to the 1.9 megacycles, it should be noted that there is an approximate 4-megacycle span between the two blocks of frequencies. This spacing will permit the Commission to provide as many as fourteen pairs of frequencies for duplex operation and an additional ten frequencies for simplex-only operation, and will thus allow the Commission consideration flexibility in the eventual disposition of the space involved.

d. In connection with all of the foregoing, Class B Citizens stations will be permitted, at least for the time being, to operate within the 462.525–467.475 portion of the band subject to no interference-protection from other Class B stations, from Class A Citizens stations operating in any portion of the 460–470 Mc band, or from any station authorized to use a frequency in the 460–470 Mc band in the Industrial Radio Services. To lessen the probability of harmful interference being cuased by Class B stations, their permissible power is being reduced to 5 watts input to the final radio frequency stage. This reduction will have only limited practical effect upon existing users and manufacturers since virtually all Class B equipment being sold or used at the present time already conforms to the new requirement. Manufacturers of Class B equipment are cautioned that the range of occupancy provided for by this Report and Order cannot be guaranteed on a permanent basis and that future developments may require a reduction to the limits originally proposed in this proceeding. Meanwhile, it may be possible for such manufacturers to design equipment capable of meeting these limits at prices attractive to the market.

[*] See footnote on p. 4785.

*Reallocation of Taxicab Split-Channels*

10. The Commission's Notice proposed that the split-channels between the present 60 kc channels in the 152.24–152.48 and 157.45–157.74 Mc Land Transportation blocks be made exclusively available in the Industrial Radio Services outside Standard Metropolitan Areas of 50,000 or more population. No opposition to this proposal has been filed in this proceeding and it is hereby adopted.

*Channel-Splitting—27.23–27.28 and 162–174 Mc*

11. The Notice proposed that the channel spacing in those portions of the 27.23–27.28 and 162–174 Mc bands which are presently available to the Industrial Radio Services should be reduced to 10 kc and 25 kc, respectively. The proposals with respect to these two bands find general support in the comments and they are hereby adopted.

*Channel-Splitting and Regularization in the 450–470 Mc Band*

12. Heretofore, operation in the Industrial Radio Services on present channels in the 450–460 Mc band has been on a developmental basis only. The Commission proposed that all future operation in the Industrial services on frequencies in the 450–460 Mc band and frequencies in the 460–470 Mc band being reallocated from the Citizens Radio Service be on a regular basis. The Commission further proposed that channel spacing for all Industrial frequencies in the 450–470 Mc band be reduced to 50 kc. Except as heretofore noted with respect to the Vocaline comments the proposals are generally supported by the comments filed herein. The Commission finds that a finalization of the foregoing proposals would be in the public interest and the proposals are hereby adopted. Technical standards covering bandwidth of emission, frequency stability and modulation limiters are already contained in the rules for the 450–470 Mc band. Electronic Industries Association (EIA) suggests that the requirement for audio low-pass filters now applicable to the 25–50 and 150–162 Mc ranges should be extended to the 450–470 Mc band. The Commission believes that this point is well taken and this feature is being incorporated into the rules. EIA also recommends that the maximum transmitter swing for frequency modulation in the 450–470 Mc range should be reduced to plus-or-minus 10 kc. This recommendation is not adopted by the Commission at this time for the reason that the present limitation of plus-or-minus 15 kc, with an authorized bandwidth of 40 kc, should adequately satisfy the requirements for adjacent channel operation.

13. EIA contends that all 450–470 Mc frequencies in the land mobile services should be made available in such services for secondary Operational Fixed purposes. The Commission believes, however, that the provision made for such Operational Fixed purposes in the Tables adopted herein is all that should be made at this time. Because these frequencies are primarily intended to serve mobile requirements, the Commission is of the view that the trend of mobile-loading should be more fully developed before taking action as broad as that called for by EIA.

*Denial of Certain Proposals*

14. In this proceeding the Commission has received a large number of proposals which are (a) beyond the scope of this proceeding; (b) irrelevant to this proceeding; (c) already the subject matter of a pending proceeding; (d) being disposed of in one of the related Dockets 11959, 11990 and 11992–95; (e) more appropriately the subject matter of a new and independent proceeding; (f) unwarranted in light of actions taken herein with respect to related subject matter; (g) of insufficient importance to warrant the delay which would be occasioned by their extended consideration at this time; or (h) of insufficient merit to sustain a finding of public interest, convenience and necessity. Among such proposals, which must be denied for one or more of the foregoing reasons, are the following:

a. A proposal by EIA that at least one 2-watt (maximum output) frequency be allocated to each radio service in each of the bands 25–50, 152–174 and 450–470 Mc for base and mobile use.

b. A proposal by EIA that there be no restrictions as to the type of intelligence that may be transmitted on communication systems in the Industrial services.

c. A proposal by Radio Corporation of America that the split channels in a number of segments in the 152–174 Mc band be allocated for control, signalling and telemetering purposes on an Operational Fixed basis.

d. A proposal by EIA (joined in by General Electric Company) that the Commission specify maximum power in terms of "output power" instead of "input power to the final radio frequency stage".

e. A proposal by Dowell Incorporated (joined in by others) that some of the frequencies in the 88–108 Mc band presently allocated for FM Broadcasting be made available in the Industrial services.

f. A proposal by the American Medical Association that protected frequencies be made available to physicians for day-to-day use to receive and answer emergency calls, for undergraduate and postgraduate medical training, and for use in disaster or medical emergencies.

g. A proposal by the American Hospital Association that one protected frequency below 50 Mc and at least two protected frequencies in the 150 or 450 Mc ranges be made available for use by hospitals and hospital associations.

h. A joint proposal by Hawaiian Sugar Planters' Association and Pineapple Growers Associations of Hawaii that Special Industrial licensees in Hawaii be relieved from mandatorily complying with the narrow-band technical standards until September of 1966, and that the effective dates of the Report and Order in Docket No. 11253 and the instant Report and Order be held in abeyance until after the completion of the proceeding in Docket No. 11997 to the extent that Hawaii is concerned.

1. A proposal by Aeronautical Radio, Inc., that action in the instant proceeding be deferred until after the Commission disposes of a petition which ARINC intends to file in the matter of establishing an Aviation Terminal Mobile Radio Service.*

j. A proposal by United States Independent Telephone Association that an REA telephone cooperative and an REA electric cooperative be permitted to jointly use a single mobile radio system.

*Power—Petroleum—Forest Products—152–174 Mc.*

15. Inter alia, the Notice proposed that the Power Radio Service receive the seven secondary splits between its present 152–162 Mc frequencies and the three secondary splits between the present 173.225–173.375 Mc Motion Picture-Relay Press frequencies except in the states of Texas, Oklahoma, Louisiana, Arkansas, Washington and Oregon; under the Notice the Petroleum Radio Service would receive the ten splits in the first four states and the Forest Products Radio Service would receive them in the last two states. NCUR resists the foregoing in several particulars. First, it contends that the three 173 Mc splits would be of little value in the Power service because of their proximity to Television Channel 7 and because of the coordination problem inherent in their interspersion among frequencies presently available to other services. In lieu of these frequencies NCUR would prefer the secondary frequencies 153.74 and 158.28 Mc and the tertiary frequency 158.295. With respect to the proposal to deprive Power of the seven splits mentioned above in the six states listed, NCUR states that the proposal reflects the heavy requirements of the Petroleum and Forest Products services in the areas involved, but does not provide corresponding relief in densely populated areas where Power has its heaviest requirement. API is unimpressed with the proposal to give it the ten splits in the states of Texas, Oklahoma, Louisiana and Arkansas; its lack of enthusiasm is generated by a contention that early utilization of the frequencies would be precluded by the wide dispersal of Power systems on regular frequencies throughout the four-state area and the lack of narrow-band equipment in use at present. Forest Industries Radio Communications (Forest Industries) acknowledges that the access to the above ten frequencies would be of great value in the two states but urges with respect to the seven Power splits that the sharing be in all six states, and that with respect to the three 173 Mc splits that Forest Products be given access to them also in California north of the 38th Parallel. Both API and Forest Industries register bids for the 158.31–158.44 Mc secondary channels proposed by the Notice for the Business Radio Service.

16. The Notice also proposed that Petroleum and Forest Products receive (on a shared basis with the proposed Manufacturers Radio Service) the splits between their present frequencies in the 153 Mc range and the frequency 158.28 Mc which lies between the Power frequency 158.25 Mc and the Forest Products-Petroleum frequency 158.31 Mc. Additionally, it was proposed that Petroleum and Forest Products share the Taxicab splits in the 152 and 157 Mc ranges, the splits to be available only outside Standard Metropolitan Areas of 50,000 or more population. API's criticism of the Taxicab splits parallels its criticism of the Power splits, and Forest Industries also doubts their utility for similar reasons.

17. We consider first the NCUR contentions. By virtue of other action herein, the tertiary frequency 158.295 is being withheld from the frequency tables. The frequency 153.74 Mc is the band edge frequency between the Industrial and Public Safety allocations; its disposition was not proposed in this proceeding, and it would be inappropriate to allocate it here without further study of all of the considerations involved. Accordingly, NCUR's request with respect to the three 173 Mc splits reduces itself to an offer to trade the three frequencies for the frequency 158.28 Mc. We think that NCUR has underestimated the utility of the three 173 Mc frequencies and it occurs to us that judicious assignment of these frequencies could free other more desirable frequencies for use in areas where the Motion Picture-Relay Press use of the 173 Mc frequencies is relatively heavy. For this reason and for the further reason that the Manufacturers Radio Service hereinafter established has a greater need for the frequency sought, the NCUR request is denied. The Commission feels that with the low-band frequencies made available to it in this proceeding and in the recent proceeding in Docket No. 12169, the Power service has been treated in equitable fashion. The Commission does not dispute that the Power service can experience a frequency shortage in the more heavily populated cities; however, this condition will undoubtedly occur with respect to many other of the Commission's services, and it presents a situation which can probably never be solved to the complete satisfaction of everyone.

18. For reasons advanced by Forest Industries and for the further reason that the action will result in complete sharing by Forest Products and Petroleum of all their frequencies above 40 Mc, the Commission is making the seven Power splits and the three 173 Mc splits available to both Forest Products and Petroleum in each of the above six states. The Forest Industries request for access to the 173 Mc splits in California north of the 38th Parallel is denied because of the nearness of that Parallel to the San Fransciso standard metropolitan area and because of the administrative inconvenience that would result from a grant of the request. The Commission has examined its proposal with respect to the Taxicab splits in the light of the comments received and has concluded that because they would afford only limited utility in the Forest Products and Petroleum services, greater efficiency in their use would be promoted by making them available in the new Business Radio Service. This action finds additional justification in two other considerations: First, because the Business service is bearing the brunt of the reduction in the amount of 460–470 Mc space being reallocated from the Citizens service, it is logical to provide a measure of compensation in the form of additional frequencies from other parts of the spectrum. Second, the "expense" of this action to Petroleum and Forest Products interests is negligible by virtue of their eligibility in the Business service where, from a practical standpoint, they can effect as high a degree of utility as would have been probable were the frequencies to be made available as proposed. As in the case of the Power service the Commission feels that its actions herein and in Docket No. 12169 provides the Forest Products and Petroleum services with a fair and equitable share of the total frequencies available, notwithstanding the contentions that all of the frequencies are not immediately usable.

*Power—Petroleum—Forest Products—27.23–27.28 and 450–470 Mc.*

19. The Notice proposed that the Power, Petroleum and Forest Products services have access to all of the 27.23–27.28 Mc frequencies; no opposition to this proposal is contained in the comments, and it is hereby adopted.

20. With respect to the disposition of 450–470 Mc frequencies the Notice proposed that Forest Products and Petroleum share six pairs of 450 Mc frequencies and that present Power users have exclusive access to five pairs of 450 Mc frequencies. Additionally it was proposed that five pairs of 450 Mc frequencies be made exclusively available to communications common carriers for repair and maintenance activities, and that a large number of 450–470 Mc frequencies be made available to the Business Radio Service. Forest Industries appears to be satisfied with the proposed allocation for Forest Products, and acknowledges that the multiple-eligibility contemplated by the Commission can be of great benefit to the services when applied to the UHF portion of the spectrum. API is sharply critical of the proposed distribution and challenges the allocation of 450–470 Mc frequencies for the Domestic Public Radio Services envisioned by Dockets 11959 and 11995. API contends that the Petroleum Service needs at least 15 pairs of 450–470 Mc frequencies, and advocates that all of the 450–470 Mc frequencies proposed for Business—including those designated as base or mobile only—be made available to "operational fixed stations in the Petroleum Radio Service on a shared basis with other services for use only in the tideland and marginal sea areas within the territorial limits of continental United States." NCUR contends that present Power users should be given the access to the five pairs of 450 Mc frequencies proposed for communications common carriers and that the repair and maintenance needs of the latter group should be accommodated from the 450–

* The petition was filed by ARINC on October 18, 1957. The above disposition of the ARINC comment filed in this proceeding is entirely without prejudice to a consideration of the foregoing petition.

470 Mc frequencies proposed for the Domestic Public Radio Services.

21. To the extend that the API and NCUR requests pertain to mobile operation, they cannot be justified or supported on the basis of past or anticipated usage of 450–470 Mc frequencies. And even if the future Power-Petroleum demands for assignment exceed those anticipated by the Commission, the Commission is confident that such demands can be readily accommodated in the Business service. In connection with the foregoing and by virtue of other actions taken herein, the Commission finds it necessary to make a departure from its original proposal. The Notice proposed a combining of the Special Industrial Radio Service into a new Business Radio Service. Because of the large number of 460–470 Mc frequencies being proposed for the new service, it was felt that three pairs of the available 450–460 Mc frequencies would be a fair and equitable share for such service. Elsewhere herein, the Commission has provided for a retention of the Special Industrial service in modified form and with a frequency complement independent of that of the Business service. The Commission has included within such complement the three pairs of 450–460 Mc frequencies originally proposed for Business, but has concluded that an additional pair for the retained service in the same general range is necessary and appropriate. Because the number of 460–470 Mc frequencies in the Business service has been sharply reduced from what was proposed, the Commission has determined that the most equitable procedure is to supply Special Industrial's fourth pair from the six pairs which were proposed for Forest Products-Petroleum. Of the nineteen 450–460 Mc frequencies available, the final distribution will be as follows: Four pairs for Special Industrial, and five each for communications common carriers, Power, and Petroleum-Forest Products. This distribution appears to be fair and equitable, particularly when it is remembered that the geographical separation between Forest Products and Petroleum usage tends to a practical effect of exclusivity insofar as either is concerned.

22. To the extent that the API and NCUR comments challenge the 450–470 Mc provision for the Domestic Public Radio Services they cannot appropriately be considered in this proceeding. The contention that the repair and maintenance requirements of communications common carriers should not be accommodated in the Industrial service on Industrial frequencies is rejected for the reason that the repair and maintenance activities in question are essentially industrial-type operations distinguishable from those of existing Industrial users in no major respects. With respect to the API plea for additional operational fixed frequencies in the tideland and marginal sea areas it should be observed that the frequency bands involved are intended primarily for mobile operation. Again, Petroleum's right of access to the Business frequencies made available herein for operational fixed use should satisfy the needs of the Petroleum service for some time to come.

*Power Radio Service—Telephone Maintenance Radio Service*

23. The Notice proposed to delete the word "primarily" in each of subparagraphs (1), (2) and (3) of § 11.251 (a) on the theory that anyone even partially engaged in activities contemplated by the section should have access to Power frequencies. In part by comments of NCUR, we are persuaded that the present wording of the section in this regard should be left unchanged.

24. It was proposed in the Notice that communications common carriers having a need for radio facilities in connection with construction and maintenance activities be provided for in the Industrial services. The Commission's rationale with respect to this proposal is well known and is adverted to in the Notice; this rationale is not controverted nor even seriously challenged by the comments filed herein. The Notice proposed that the above need be satisfied by providing for the communications common carriers a limited eligibility in the Power Radio Service. In part, the Commission's reluctance to establish a separate Industrial service for the communications common carriers was based upon the limited number of frequencies which the Commission contemplated making available to them. Thus, the Notice proposed that the above carriers be given only five pairs of frequencies—on an exclusive basis—in the 450 Mc band. As is generally known, however, the Commission's First Report and Order in Docket No. 12169 reserved for the carriers (should their eligibility be provided for in this proceeding) two frequencies in the 25-50 Mc band and two frequencies in the 150.8-152 Mc band.[10] In the Commission's view the needs of the carriers are such as to justify not only the four latter frequincies but also the ten contemplated by the Notice. With the total number of frequencies thus provided for the carriers, a separate service for them is now more than warranted, and such service—to be known as the "Telephone Maintenance Radio Service"—is herein provided for. In view of this action, the proposal in the Notice that the "Power Radio Service" be retitled the "Utilities Radio Service" is abandoned.

25. Both NCUR and American Telephone and Telegraph Company object to an interspersing of the 450 Mc frequencies respectively proposed for present Power eligibles and communications common carriers. This interspersing of frequencies was occasioned by the Commission's desire to give the carriers exclusive frequencies ab initio by awarding them the split-channels derived from reducing the separations between the frequencies proposed for the Power users. Because both parties are in essential agreement on the point the Commission sees no substantial reason why they cannot be accommodated; accordingly, appropriate revision of the frequency tables has been made.

26. United States Independent Telephone Association (USITA) has offered suggestions as to the wording of the eligibility rule for the new service. USITA's intentions are that there be excluded from eligibility community antenna operations, cooperative associations such as those presently contemplated by Part 11, and persons whose communications common carrier service is limited to telegraph or to wireless facilities. The Commission's proposal did not contemplate that the first two of the above groups would be eligible and the provision in question has been reworded to preclude such an interpretation. With respect to those communications common carriers whose service is entirely by wireless facilities, it is believed that ther needs can and should be accommodated in the Business Service, and they are being excluded from the eligibility provision. To the extent, however, that such a carrier also serves the public with wireline facilities, it will be fully eligible in the new service.

27. In a petition filed on July 1, 1953 by the Rural Electrification Administration, it was requested that an "electrical" licensee in the Power Radio Service which has an operating agreement to construct, repair or maintain telephone facilities, be permitted to use its radiocommunications system (under certain conditions) in connection with activities of the above nature. It appears to the Commission that the total demand for such permission is not so great as to warrant, at this time, the rules changes contemplated. Accordingly, the above petition is being denied without prejudice to its being refiled should such demand substantially increase.

*Motion Picture and Relay Press Radio Services*

28. In its Notice the Commission stated its belief that the existing and anticipated loading in these services justifies neither the making available therein of the split-channels in the 152–162, 162–174 or 450–460 Mc bands, nor continuing the access in these services to the 450–460 Mc frequencies which they have heretofore shared with the other Industrial Radio Services. It proposed, however, that both of the above new services be permitted to share in the use of the old and new channels in the 27.23–27.28 Mc band.

29. The Commission received no comment from any Motion Picture licensee or organization. The Commission, however, has reviewed the above proposal as it affects the Motion Picture service, and has concluded that it must be supplemented in light of the action (FCC 57–1016—adopted September 19, 1957) which resulted in the reallocation of Motion Picture's four 49 Mc frequencies to Government use. Accordingly, the Commission is adding to the Motion Picture table the split-channels 152.90, 152.96 and 153.02, which lie adjacent to present Motion Picture frequencies.

[10] The latter two frequencies are 151.955 and 151.985 Mc. In the proceeding in Docket No. 12169, American Telephone and Telegraph Company requested that the frequency 151.955 be exchanged for a split-channel four or five Mc removed to permit duplex operation. The Commission believes that the foregoing purpose can be served by substituting the frequency 156.34 Mc for the above 151.955 Mc.

30. American Newspaper Publishers Association Subcommittee on Mobile Radio (ANPA) attacks the Commission's proposal to the extent that it applies to the Relay Press service. Calling the Commission's judgment with respect to usage in this service premature, ANPA particularly attacks what it terms a substitution of 27 Mc frequencies for the 450 Mc frequencies heretofore available; in this connection it calls attention to the outstanding proposal in Docket No. 12169 to limit the availability of 25–50 Mc frequencies to persons having wide-area communications requirements, and contends that only a few newspapers would be able to qualify for the use of the above 27 Mc frequencies. Aside from the fact that the above wide-area proposal has not yet been finalized, it was never intended that it apply to the 27 Mc frequencies in question. Accordingly, even if the wide-area proposal is ultimately enacted, Relay Press users could still be authorized on 27 Mc frequencies without the special showing.

31. Despite ANPA's protests, the Commission cannot conclude that existing or anticipated usage justifies the allocation of exclusive 450 Mc frequencies for the Relay Press service. In view thereof, Relay Press users must satisfy whatever needs cannot be met by the use of 27 Mc or 173 Mc frequencies by taking advantage of their eligibility in the new Business Radio Service. If, as ANPA forecasts, Relay Press usage materially increases in the coming months, a reexamination of their allocation will be in order.

*Manufacturers Radio Service*

32. In its Notice, the Commission acknowledged the special need by manufacturing plants for reliable radiocommunications circuits in connection with production control, security activities and localized materials-handling, and proposed the creation of a new Manufacturers Radio Service. It was further proposed that stations in the new service use no more than 30 watts plate power input, and that antennas be limited in height to the highest of either fifty feet above ground level or twenty feet above the top of any building within five hundred feet. With respect to frequencies the Notice proposed that the new service have exclusive access to ten frequency-pairs in the 460–470 Mc band and a shared access (with the Petroleum and Forest Products services) to a total of fifteen primary and secondary channels in the 152–162 Mc band. Fixed stations of all classes would be barred by the proposal. Stations would be permitted to transmit communications only in connection with plant security, production control and "materials-handling which constitutes an immediate part of the manufacturing process, as contrasted to the collection of raw or semi-processed materials from other sources or the distribution or delivery of the finished products."

33. The comments contain only limited opposition to the general proposal to establish a Manufacturers Radio Service, and this opposition is primarily grounded in contentions that it would be unduly discriminatory to provide measures of protection for one group of present eligibles in the Special Industrial Radio Service while simultaneously relegating all other groups to the relatively unprotected Business Radio Service. With the retention of a modified Special Industrial service herein provided for, it is believed that most of the foregoing opposition is dissolved; in any event, the protesting parties have not overcome the basic premise that manufacturing plants have great need for reliable circuits for the communictions purposes contemplated.

34. A number of parties contend that the proposed power and antenna height limitations are unduly restrictive and take no account of the needs of plants which extend over large areas or which have unusually high noise potential. The above limitations were proposed, in part, with a view to ensuring that the use of a particular frequency by one licensee in a predominately-manufacturing area would not seriously impair its utility to another company in a nearby area. Upon reconsideration of the limitations in the light of the comments received, it is believed that the power limitation should be increased to 60 watts and that the antenna restrictions should be eliminated entirely. The effect of the latter action is to place the Manufacturers Service in the same position as the other of the Commission's Industrial services.

35. The Commission detects no significant or specific opposition to the proposal to allocate ten pairs of 460–470 Mc frequencies to the Manufacturers service and this proposal is adopted. API and Forest Industries resist the proposal that the new service share with Petroleum and Forest Products in the use of a number of 152–162 Mc frequencies. Neither party, however, has been able to successfully refute the considerations which led the Commission to propose the shared use. The Commission is confident that with sincere cooperation among the three services involved, mutual use of the above frequencies can be effected without serious interference consequences. Such interference as is encountered will be more than justified by the high degree of efficiency that the mutual use will promote.

36. United States Steel Corporation contends that the new service should have access to a number of frequencies in the 35–47 Mc band. In the Commission's view, however, to allocate "long-range" frequencies to a service whose basic need is for "short-range" communications would be totally inconsistent and unjustified. Again, the Commission points out that the new Business service—in which manufacturers will be eligible—will have a large number of the above "long-range" frequencies. In connection with the foregoing the Commission has not overlooked the fact that a number of manufacturers will have to vacate their present frequencies as a result of this proceeding and other proceedings heretofore mentioned. Their situation in this respect is not unique, since many other users are similarly affected. To ease the burden of the required frequency shifts, the Commission has hereinafter established what it feels will be adequate and equitable amortization provisions.

37. EIA contends that provision should be made in the Manufacturers service for operational fixed stations, particularly in the microwave regions. The Commission currently has pending a proceeding (Docket No. 11866) wherein the possibility of permitting the use of private microwave systems by manufacturers is a prime issue, and the Commission feels that the outcome of that proceeding should be awaited before a fixed allocation to the Manufacturers service is considered. Meanwhile, manufacturers having fixed requirements will have access to frequencies in the range 27.235–27.275 Mc; additionally, they will be permitted to use mobile-only frequencies in the range 460–470 Mc for control stations which are integrated into Mobile Relay Systems.

38. General Electric Company feels that manufacturers should be encouraged to use three-watt-input equipment for in-plant dispatching, but fears that they will have no incentive to apply for such systems in the Business service because no protection will be provided for them therein. Accordingly, General Electric would reserve at least two low-power frequencies in the Business service for the exclusive use of manufacturers. In light of the Commission's experience in administering the present Low Power Industrial Radio Service—where many manufacturers are currently licensed—the Commission concludes that General Electric's fears are with little foundation. In any event, the Commission has no intention or disposition to earmark any of the Business frequencies for particular categories of users, since to do so would be to destroy one of the basic concepts of the new service.

39. In its comments, United States Steel Corporation refers to that part of the proposed new rules which would prohibit the use of a system in the Manufacturers service in connection with the "collection of raw or semi-processed materials from other sources or the distribution or delivery of the finished products" (see the first paragraph under the above heading), and contends that such a prohibition could be interpreted as precluding the use of radio in connection with the movement of materials stored in locations outside the immediate yard area of the plant or the movement of finished products from the production line to other points before final shipment. The creation of the Manufacturers Radio Service was primarily dictated by the needs of manufacturers for in-plant communications. Consequently, the above prohibition was designed to confine the licensee's communications relating to materials-handling to those where the materials in question are in the immediate control of the licensee and are immediately needed in the manufacturing process; materials of this type would almost always be in or near the manufacturer's area. However, the Commission foresees that numerous problems of interpretation could arise as a result of the proposed wording, and that their case-by-case determination could seriously delay our

administrative processes. Accordingly, the Commission is modifying the rule in question along the lines suggested by United States Steel, and will permit licensees to use their systems in connection with all phases of materials-handling short of the retail distribution of the manufacturer's products to individual consumers.

*Requests for Mining Radio Service*

40. In this proceeding, a large number of comments—filed by mining companies and associations of mining companies—call for the establishment of a Mining Radio Service. These comments were primarily stimulated by the Commission's proposal to delete the Special Industrial Radio Service and to thereby dilute, to some degree, the protection that the mining industry currently enjoys as an eligible category in that service. In subsequent paragraphs hereof the Commission orders a retention of the Special Industrial service; in connection with this retention the Commission has eliminated a number of activities from eligibility in the service and has thereby made possible a higher degree of interference-protection than the service has heretofore enjoyed. Consequently, whatever justification may have existed for the establishment of a Mining Radio Service had the Commission finalized the proposal to delete the Special Industrial service, it is clear that none presently exists. In connection with the foregoing it can be pointed out that the use of radio by the mining industry—by virtue of such industry's primary concentration in remote and sparsely settled regions where other Special Industrial eligibles are, for the most part, absent—is highly compatible with usage by such other eligibles. In view of the above, the requests for a Mining Radio Service are denied.

*Special Industrial Radio Service vs. Business Radio Service*

41. For reasons set forth therein the Commission's Notice proposed the deletion of the Special Industrial Radio Service and the absorption of its licensees into a new service to be known as the Business Radio Service. With respect to the bare proposal to create the Business Radio Service, no significant opposition has been received. However, to the extent that the Commission's proposal involves the deletion of the Special Industrial service, it has been vigorously resisted. In addition to the opposition registered by the mining industry, protests have come from the petroleum industry and from licensees presently in the Special Industrial service and associations of such licensees. Among the associations filing extensive comments on the point were the Special Industrial Radio Service Association (SIRSA) and the Petroleum Equipment Suppliers Association (PESA). The consensus of all the comments relevant to the foregoing problem is that (a) the Business service should be established; (b) the Special Industrial service should be retained with a removal of many of the operating restrictions presently obtaining; (c) in connection with the foregoing, the eligibility provisions of the Special Industrial service should be revised with a view to eliminating the access to the service by many persons not having long-range communications requirements and not having significant safety problems; and (d) the frequency complement of the Special Industrial service should be increased.

42. The Commission has studied the above comments in the particular light of the indisputable need of business generally for mobile radio facilities, of present usage and requirements within the Special Industrial service, and of the administrative difficulties it has experienced with respect to the latter service and has concluded that, at least temporarily, the above consensus should prevail. Accordingly, the Commission is here establishing a Business Radio Service and is retaining the Special Industrial Radio Service in modified form. The modifications which have been effected are readily apparent from the new rules which are appended hereto and they will not be dwelled upon to any great extent. The following principal points, however, should be noted:

(a) In addition to eliminating from eligibility certain "sub-activities" of an over-all category of activities, the Commission has, in a number of cases, eliminated the entire category. With respect to all the persons affected, it is felt that they can readily meet their communications requirements within the new Business service.

(b) For the same reason, those persons (such as electrical and plumbing contractors) who were "grandfathered" by the 1955 revision of the Special Industrial rules are also barred from further access to the Special Industrial service.

(c) Because a new service tailored to their most pressing requirements has been established for them, and because they will also be eligible in the Business service, manufacturers have been excluded by the new rules.

(d) With respect to all persons eliminated, a five-year amortization period has been established. Although a longer amortization period would be more attractive in the eyes of the persons displaced, the administrative difficulties and the inconvenience to the service as a whole which would result precludes such longer period.

(e) The Standard Metropolitan Area restrictions in the present rules have been eliminated.

(f) The present power limitations and the right of access to frequencies in the medium and high frequency-ranges have been retained for the Special Industrial service.

(g) Although this Report and Order speaks of a "retention" of the Special Industrial service, the Subpart K set forth below is regarded by the Commission as an entirely new set of rules. Thus, although similarities in language may exist in the old and the new rules, interpretations and policies effected under the old rules will not be binding upon the Commission with respect to the new ones. In administering these new rules a fundamental principle must be that the purposes here are to reduce the number of activities eligible in the service, to ease to the greatest extent possible the administrative burden of processing what might be called "gray" applications, i. e., those which partly—but not completely—fell within old classifications, and to provide a higher quality service for the remaining eligibles.

43. The creation of the Business service and the retention of the Special Industrial service having been decided upon, the principal problem still remaining relates to the distribution of frequencies between the two services. Among the considerations which have been weighed by the Commission in arriving at this distribution are the following: (a) As a result of recent actions involving the ionospheric scatter problem, the Special Industrial service has lost four exclusive and eight shared frequencies in the 49 Mc range. Because a majority of the licensees on these frequencies will continue to be eligible in the Special Industrial service such available space as will permit the most economical frequency-shifts should be provided for them.

(b) Although existing loading within the Special Industrial service justifies a general supplementing of existing frequencies, the needs of business generally for frequencies in the 25–50, 152–174 and 450–470 Mc bands cannot be overlooked.

(c) Because of the lack of formal coordination facilities in the Business service, the interspersion of frequencies between the two services should be avoided to the greatest extent possible. Based upon its determinations with respect to the foregoing considerations, the Commission has made such distribution as it feels will promote the greatest and, at the same time, most equitable utilization of the total number of frequencies available. In making this distribution the Commission has to the maximum extent possible attempted to provide space which will permit economical frequency changes for those systems which will be displaced because of the "scatter" allocations and the changes adopted herein.

44. In the bands above and below the 450–470 Mc range, the Commission feels that, except for the frequencies 27.39, 27.43, 27.47, 35.90 and 35.94 Mc, Special Industrial should be permitted to retain all frequencies presently allocated to it. Additionally, and for purposes of (a) compensating the service for its recent losses in the 49 Mc range and (b) increasing its frequency complement beyond what formerly obtained, the Commission believes that Special Industrial should have (a) the seven split-channels in the 47 Mc range reallocated to the Industrial services in Docket No. 12169; (b) the three remaining split-channels between Special Industrial's present frequencies in the 43.02–43.18 Mc block;[11] (c) the three split-channels between its present frequencies in the 35.74–35.86 Mc block; (d) the frequency 158.40 Mc proposed by the Notice for use in the combined service; (e) four of sixteen 151 Mc frequencies reserved for Business by

[11] The frequency 43.16 Mc was made available by Docket No. 12169 for communications common carriers.

Docket No. 12169; and (f) a shared access to the three split-channels in the 152.87–153.05 Mc block. The Special Industrial service presently has five 40 kc channels (commencing with 27.31 and ending with 27.47 Mc) in the 27.29–27.53 Mc range. As indicated above, the Commission is depriving this service of the last three of these frequencies; to replace them, and to preserve block allocations in this range, the Commission is awarding Special Industrial the split-channels 27.29, 27.33, and 27.37 Mc. Finally, where Special Industrial previously enjoyed a shared access to ten frequency-pairs in the 450–460 Mc range, it will now have exclusive access to four pairs in such range.

45. It will be noted in the Subpart K set forth below that certain frequencies are identified as being available for "permanent", "itinerant" or "general" use. The "permanent" frequencies will be exclusively available for stations which are to be restricted in operation to a specified permanent area for which frequency coordination has been accomplished. The "itinerant" frequencies will be assigned only to stations to be used in itinerant operations, which require that the station be moved from time to time to various temporary communication areas. The "general" frequencies will be available to either of the above types of stations. In providing exclusive frequencies for both "permanent" and "itinerant" types of stations, it is the Commission's purpose to make possible for a station of either type an operation free of co-channel interference from stations of the opposite type. A similar system has been established for the Business service (see Subpart L set forth below).

46. For low-power purposes, Business will receive all five frequencies heretofore available to the Low Power Industrial Radio Service. In addition, and also subject to a three-watt power limitation, the low-power complement will receive the split-channels 27.53 and 154.60 Mc and ten of the 460–470 Mc frequencies being reallocated from the Citizens Radio Service.

47. The "non-low-power" complement of Business frequencies is to be composed as follows:

(a) It will receive a total of fifteen channels (regular and split) in the 35 Mc range.[12]

(b) It will receive the six regular and split channels commencing with 27.39 Mc and ending with 27.49 Mc, the split channel 154.54 Mc, the two split channels on either side of the low-power frequency 42.98 Mc, and twelve of the sixteen 151 Mc frequencies reserved for the combined service by Docket No. 12169.

(c) It will receive all of the 460–470 frequencies not heretofore reserved for other services.

(d) It will receive the six Taxicab split-channels in the 152 and 157 Mc ranges, the splits to be available only outside Standard Metropolitan Areas of 50,000 or more population.

(e) It will have access to the 27.23–27.28 Mc frequencies, the 72–76 Mc frequencies, the hydrological frequencies and the microwave frequencies on the same bases and conditions as will obtain for the Special Industrial service.

48. The eligibility provisions specified in the Notice for the Business service are adopted substantially as proposed with the addition of a paragraph eliminating any doubt as to the eligibility of hospitals, clinics, hospital associations and medical associations. A number of parties contend that eligibility in the new service should be limited to those persons having eligibility in no other service. Such a limitation would not only unduly burden our administrative processes but would also destroy a prime purpose of the Business service, namely, to provide other services with a source of supplementing their available frequencies.

49. A large number of commenting parties resist the Commission's proposal to limit input power in the Business service to 180 watts. Virtually all of these comments are from licensees and user groups in the Special Industrial service and, as heretofore indicated, the above limitation will not apply in that service. With the broad eligibility provisions of the Business rules, the Commission anticipates that it will be called upon to load frequencies in unprecedented proportions. To permit such loading and to otherwise promote the most efficient and equitable use of the available frequencies, the Commission feels that the 180 watt restriction must be finalized as proposed.

50. Many comments contend that the 1.6–6.0 Mc frequencies should be made available to the Business service; again, however, most of these were on behalf of Special Industrial licensees—who will continue to have access to most of such frequencies. In the Commission's view, the existing and potential loading of these frequencies by higher-priority users precludes their availability in the Business service.

51. With respect to Business usage of 25–50 Mc frequencies, one party contended that it should not be permitted in Standard Metropolitan Areas except upon a special showing; alternatively he suggested that each Business applicant for a 25–50 Mc frequency certify that higher orders of frequencies would not be adequate for the operation proposed. To a large extent, the first alternative is already within the scope of a remaining issue in Docket No. 12169. The second alternative would greatly increase the processing time for applications for the principal reason that many applications would have to be returned where the applicant inadvertently did not comply with the requirement. In any event, the certification would amount to no more than a statement that the applicant was complying with § 11.8 (b) of the rules—a section with which he is already expected to comply.

52. One party contends that two-frequency operation on frequencies above 450 Mc should not be permitted in the Business Radio Service except upon special showings of need therefor. The general justification for two-frequency operation in the band involved was established a number of years ago; in the Commission's view such justification can be carried over to the Business service. The same party also contends that "more" frequencies above 450 Mc should be made available for Mobile Relay stations. From this party's arguments the Commission concludes that he is under the impression that a Mobile Relay station is an Operational Fixed station. By definition, however, a Mobile Relay station is a Base Station in the mobile service; accordingly, all of Business' Base Station frequencies above 450 Mc are available for Mobile Relay purposes.

53. Kaar Engineering Corporation (Kaar) and others make a number of points with respect to the Commission's low-power frequencies. Some of these points, dealing with availability of secondary frequencies and coordination of assignments, are expressly or impliedly disposed of in other portions of this Report and Order. Kaar also contends that if the Commission combines the Low Power Industrial service into the new Business service, the incentive to try to get by on low power will be destroyed, and applicants will tend to specify maximum power even though the areas to be served are relatively small. In connection with the foregoing, Kaar would also require applicants to make special showings of need where higher powers are specified. If the Commission's past experience in administering the Low Power service can be used as a basis, no significant change in the tendency to use low-power frequencies is likely to occur. In the past, people have been guided to the Low Power service because they were able to satisfy their communications requirements with low-power equipment costing less than the high-power equipment available for the other services. The low-power frequencies are still available and, in fact, their number has been increased; additionally, the same money-saving opportunities are present, and the Commission anticipates no slackening in the demand for low-power authorizations despite the fact that the Low Power service will no longer separately exist.

54. Halliburton Oil Well Cementing Company has no objection to the transfer of the Low Power service to the Business service so long as the same operating rules and technical standards for the frequencies involved are retained. In the foregoing connection Halliburton also believes that low-power stations should be classified as mobile stations, but that they should be permitted to be operated as base stations with antennas not exceeding twenty-five feet. The rules proposed in the Notice for the low-power frequencies differ from the old rules in only two major or significant respects: First, stations could only be used as mobile stations; second, antennas would not be limited to twenty-five feet. With respect to mobile stations, the Commission believes that antenna restrictions are inappropriate. In the first place, because they are mobile stations, an inherent restriction is present in the great majority of situations. However, there are some situations—such as where the station is to be in-

[12] The frequency 35.16 Mc was made available by Docket No. 12169 for communications common carriers.

stalled on a crane, aircraft or similar equipment—where the station could not function were it limited to twenty-five feet between the transmitter and the antenna. It is operating requirements such as these that the Commission is trying to accommodate. Upon consideration of Halliburton's other point, however, the Commission believes that there is substantial merit. Accordingly, it is revising the section in question to permit low-power stations to be located at fixed locations for indefinite periods of time, provided that the distance between the control point and the center of the radiating portion of the antenna involved does not exceed twenty-five feet.

55. By virtue of actions in Docket No. 12169, the frequencies 35.06, 35.10, 35.14 and 35.18 Mc were withdrawn from those available in the Maritime Mobile services and the Power Radio Service, and the frequencies 35.70 and 35.98 Mc were withdrawn from those available in the Automobile Emergency service. Because these frequencies will, with the effective date of this Report and Order, be available in the Business Radio Service, all licensees on such frequencies on such effective date will be considered as licensees in the Business Radio Service, and will be subject to all rules and regulations of the new service when the amortization privileges afforded by the above Docket No. 12169 have expired.

*New Format*

56. It will be noted from the attached Appendices that the format for the frequency tables appearing in the Special Industrial, Business, Manufacturers, and Telephone Maintenance Radio Services differs from what has previously uniformly obtained in the Industrial services. It is the Commission's intention to ultimately apply this same format to the tables appearing in the other Subparts of the Industrial services.

*Availability of Split Channels*

57. Pursuant to the First Report and Order in Docket No. 12169,[13] Industrial split-channels in the 35–36 and 42–50 Mc bands became available for assignment on April 1, 1958. The same document channelized the 150.8–152 Mc band on a 30 kc basis and provided for their availability, also on April 1, 1958. As proposed in the Notice and supported by the comments herein, all Industrial split-channels in the 27.23–27.28 and 450–470 Mc bands will become available on the effective date of this Report and Order. Because there is no basis for distinction as against other split-channels in the 25–50 Mc range, the split-channels in the 27.28–27.54 Mc range awarded herein to the Special Industrial and Business Services will also become available on the above effective date. The sole remaining question with respect to the availability of split-channels relates to those in the 152–174 Mc band.

[13] FCC 57-1393—adopted December 18 and released December 20, 1957.

58. In the Notice, the Commission proposed that secondary frequencies[14] and tertiary frequencies[15] become available on November 1, 1963, but that earlier assignments could be made upon specified showings by the applicant. It was also proposed that frequencies offset by less than 15 kc from those listed as available be assigned on the same basis and showing as tertiary frequencies when the application is also accompanied by an adequate showing of need for such irregular assignment. The proposed 1963 availability-date was, of course, geared to the date prescribed by Docket No. 11253 for mandatory-compliance with the narrow-band technical standards established for the band in that proceeding. However, there presently exist a number of factors which impress the Commission with the propriety of making the frequencies immediately available, i. e., on the effective date of this Report and Order. First, the recent scatter reallocation has resulted in a loss of a large number of prime Industrial frequencies; although this loss is most directly felt by the Special Industrial and Business Services, the accompanying readjustment of frequencies has tended to spread the total impact over all of the Industrial Services. Second, the percentages of narrow-band equipment already in use and currently being manufactured and sold greatly exceeds those originally anticipated by the Commission. These percentages are, of course, higher for the lower bands than for the higher bands, and this circumstance may tend to decrease the total demand for a short period of time for the 152–174 Mc split-channels because of the increased appeal of the lower-band split-channels. Third, Docket No. 12295 (see 58–78—adopted January 22 and released January 23, 1958) has reopened the question as to the dates by which compliance with the new technical standards must be effected. Of course, whatever dates evolve in the latter proceeding with respect to compliance will apply in the Industrial Services. Finally, and this is a factor upon which the Commission particularly relies, it is the general impression of many licensees operating in the Industrial Service that a large percentage of the adjacent-channel interference problems can be avoided by proper coordination procedures. As a result of this action in making the 152–174 Mc split-channels immediately available, the total interference-potential will be at a higher level in the coming months. The Commission believes, however, that increased cooperation among licensees, voluntary acceleration in equipment-changeover schedules, and intelligent counsel by equipment sellers will hold the interference within livable limits.

[14] In the 152–162 Mc block, secondary frequencies are those removed by 30 kc from presently-available frequencies; in the 162–174 Mc block, the separation is 25 kc.

[15] In the 152–162 Mc block, tertiary frequencies are those removed by 15 kc from presently-available frequencies; there are no tertiary frequencies in the 162–174 Mc block.

*Assignment Policies*

59. The general policy which has heretofore obtained with respect to the assignment of Industrial frequencies has been contained in § 11.8 (a) of the industrial rules. In brief, this policy recites that frequencies are available on a shared basis only and that applicants and licensees must cooperate in their selection and use. Although they have not been specifically contemplated by the foregoing rule or policy, frequency advisory committees for most services have been in existence for some time, and many applicants and licensees have utilized them to the extent of effecting the coordination required by the above § 11.8 (a). Consistent therewith, in proposing for the above § 11.8 amendments which appeared to be appropriate in light of the modified channel spacing, the Commission not only offered more definite and detailed procedures with respect to effecting coordination in the selection of frequencies, but also proposed an alternative procedure whereby the applicant could work through a representative advisory committee and secure a frequency recommendation for submission to the Commission. More specifically, the Commission's proposal would retain the basic, mandatory-cooperation features of the rule, but would require (in all services except the Business Radio Service) that applicants for frequencies not previously authorized to them give evidence of frequency coordination by (a) submitting a notarized statement that all licensees within 75 miles of the proposed station and not more than 60 kc removed from the requested frequency had been notified of the applicant's intention, and a report showing the probable interference to such stations, or (b) submitting an advisory recommendation from a frequency advisory committee organized in such a manner as to be representative of all persons eligible in the service involved in the area purported to be served by such committee.

60. As is generally known, Part 10 of the Commission's rules have contained provision for frequency advisory committees for a number of years, and it was a purpose of the proposal to effect between the two Parts a higher degree of consistency than has heretofore prevailed with respect to such committees. A large number of parties have expressed themselves on the proposal and their views have been considered in the Commission's decision to establish the alternative coordination procedure essentially as proposed. It is anticipated that our rules requiring cooperation in the use of assigned frequencies will provide the basis for effective cooperation whether on an individual basis or collectively within the framework of a committee.

61. NCUR and API would require that an existing licensee follow the coordination procedures of the rules where he proposes to add stations on the frequency, particularly where the operating area of the applicant would be thereby extended. In the Commission's view it is fundamental that an existing licensee

proposing to add stations in the same general area should be spared the burden of the coordinating requirements. However, the NCUR–API position has considerable merit where the additional stations are to be located in areas substantially removed from the existing area of operation, and, in such a situation, the applicant would be expected to coordinate.

62. A large number of parties have suggested that the coordinating procedures be made mandatory in the Business Radio Service and in the Special Industrial Radio Service should the latter service be retained. This point is well taken with respect to the Special Industrial Service and the procedures will be required therein. Because of the extreme lack of homogeneity in the new Business Service, however, and because of the anticipated frequency-loading therein, it is not considered practicable to apply the procedures to the latter service. Accordingly, except where the frequency requested is immediately adjacent to a frequency available in another service, licensees in the Business Service will be bound only by the general requirements pertaining to the use of frequencies.

63. In framing the proposed § 11.8 (a) the accent was upon its applicability to primary frequencies, and the figures of 60 kc and 75 miles were arrived at on the theory that until November 1, 1958 (under Docket No. 11253), applicants could be assigned such frequencies even though they specified broad-band equipment, and that adjacent-primary users should be protected to the extent of steering new applicants where possible to frequencies that were not adjacent to any other primary within the 75-mile radius. However, the Commission has restudied the matter in the light of (a) the proximity of the November 1, 1958, date and the possibility that an earlier date might evolve from the proceedings in Docket No. 12295; (b) the large percentage of narrow-band sets already in use; and (c) the fact that, as a practical matter, virtually all of the users in the interval will specify narrow-band equipment. On the basis of this restudy the Commission concludes that the advantage which would accrue in the matter of affording adjacent primary users a greater measure of protection would be more than overcome by the disadvantage of imposing upon new applicants the additional and resultant burden. Accordingly, the figure of 60 kc in the proposed § 11.8 (a) is being reduced to 30 kc, and the figure of 75 miles is being reduced—with respect to adjacent frequencies within 30 kc—to 35 miles. In light of the foregoing, except in those situations listed in § 11.8 (a) (1) set forth below, all applicants in the Industrial Services must coordinate the requested frequency to a distance of 35 miles in the case of adjacent-channel stations, and 75 miles in the case of co-channel stations.

64. By virtue of the Commission's previous action in making all split-channels in the 152–174 Mc band immediately available, the procedures specified in the new § 11.8 (a) apply to all frequencies listed in the new tables. In this connection it should be noted that the Commission has not listed the tertiary frequencies proposed in the Notice. With respect to these tertiary frequencies, and all other "offset" frequencies above 152 Mc, the Commission has provided for their availability upon comprehensive showings specified in a new § 11.8 (i).

65. The Commission's Notice proposed that certain band-edge frequencies in the 154 and 173 Mc ranges be available in the Business Service for narrow-band, developmental operation. With little practical deviation from the proposal, these frequencies will be carried in a new § 11.8 (j), and they will be available in any of the Industrial Services.

66. The only significant point remaining with respect to the proposed changes to § 11.8 is the one wherein the Commission proposed that the use of any frequency could be restricted as to hours of operation. A number of comments in opposition to this proposal have been received from persons whose businesses operate on a round-the-clock basis. The proposal in question was dictated solely by the fact that, in the use of some frequencies—such as Government frequencies and medium and high frequencies—additional operating restrictions are sometimes prerequisite because of other operations on or near the frequency requested. In view thereof, the proposal is adopted.

67. With the changes outlined or referred to above and with other editorial changes, the proposed amendments to § 11.8 are adopted, and all comments inconsistent therewith are denied.

*Pending Petitions*

68. Considered herein in connection with the disposition of the instant proceeding were the following petitions: Petition of Administrator of the Rural Electrification Administration, filed on July 1, 1953; Petition of Allen B. Du Mont Laboratories, Inc., filed on September 19, 1956; Petition of Special Industrial Radio Service Association (152–162 Mc), filed on November 7, 1956; Petition of Special Industrial Radio Service Association (450–460 Mc), filed on November 7, 1956; Petition of National Committee for Utilities Radio, filed on November 15, 1956; Petition of Kaar Engineering Corporation, filed on December 14, 1956; Petition of Central Committee on Radio Facilities of the American Petroleum Institute, filed on January 2, 1957; Petition of Central Committee on Radio Facilities of the American Petroleum Institute, filed on January 9, 1957; Petition of Forest Industries Radio Communications, filed on January 23, 1957; Joint-Petition of National Ready Mixed Concrete Association and National Sand and Gravel Association, filed on March 6, 1957; Petition of Forest Industries Radio Communications, filed on March 11, 1957; and Petition of Petroleum Equipment Suppliers Association, filed on October 3, 1957.

*Equipment Amortization*

69. As a result of actions herein, frequencies upon which some licensees are currently operating will no longer be available in the services involved. In the Special Industrial service, there is the additional problem that a number of present licensees will no longer be eligible in the service and will also be required to change frequencies. To allow all persons required to change frequencies by this Report and Order to amortize their equipment investments, the Commission is providing that no one will be required to shift prior to June 15, 1963. The foregoing, of course, is separate and apart from the frequency-shifts required by the recent actions reallocating the 49.51–50.00 Mc band for scatter purposes. In the Special Industrial service, however, the following exemplifying situation should be noted: Licensee X will no longer be eligible in the service. He is currently operating on the frequency 49.98 Mc. By virtue of prior proceedings, he must vacate this frequency by December 31, 1959 or at the expiration of his current license term (whichever is later); both of the dates, of course, will occur prior to June 15, 1963. Because he is allowed in Special Industrial until the latter date, he may, if he chooses, make an intermediate shift to another Special Industrial frequency at the time he vacates the frequency 49.98 Mc. Any authorization issued under this option will be limited in duration to June 15, 1963.

*Codification of Rules—Changes in Docket No. 12169*

70. In the Ordering Clause of the Report and Order in Docket No. 12169 (See FCC 57–1393—adopted December 18 and released December 20, 1957), it was ordered that the formal codification of the changes effected by the Report and Order would be accomplished by subsequent order of the Commission. For its own convenience, and for the convenience of persons eligible or licensed under Part 11, the above codification is accomplished as set forth below.

*Requests for Oral Argument*

71. The comments contain a number of requests, in one form or another, for the right to appear before the Commission to present oral argument in support of the positions advanced. Good cause for such oral argument not having been established the requests therefor are denied.

*Conclusion and Order*

72. Upon consideration of all of the comments filed herein and of all other matters relevant in this proceeding, the Commission concludes that the amendments outlined above and reflected in the amendments set forth below will materially serve the public interest, convenience and necessity. The authority for such amendments is set forth in sections 4 (i) and 303 of the Communications Act of 1934, as amended.

73. In view of the foregoing: *It is ordered*, This 18th day of June 1958 that effective August 1, 1958, Part 11 of the Commission's rules is hereby amended in the manners set forth below. *It is further ordered*, That all requests advanced herein for oral argument are denied; and that the petitions identified in paragraph 68 hereof are granted to the extent that such action is consistent

with other actions herein taken, and in all other respects are denied.

(Sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303)

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

A. Section 11.8 of the rules is amended in the following particulars:

1. Amend 11.8 (a) to read as follows:

§ 11.8 *Policy governing the assignment of frequencies.* (a) The frequencies which normally may be assigned to stations in any one of the several Industrial Radio Services are listed in the applicable subpart of this part. All licensees of stations in these services shall cooperate in the use of the frequencies assigned in order to minimize interference, and thereby obtain the most effective use of the authorized facilities. Each frequency or band of frequencies listed in this part is available on a shared basis only and will not be assigned for the exclusive use of any one licensee. The use of any frequency may be restricted as to specified geographical areas, maximum power, or such other operating conditions as are contained in these rules or in the station authorization. Except for applications listed in subparagraph (1) of this paragraph, each application requesting assignment of a frequency shall be accompanied by evidence of frequency coordination in the form set forth in either subparagraph (2) or (3) of this paragraph.

(1) The following applications need not be accompanied by evidence of frequency coordination:

(i) Any application requesting a frequency which is already authorized to the applicant for use in the area concerned.

(ii) Any application requesting a Federal Government frequency.

(iii) Any application requesting a frequency allocated primarily for Industrial, Scientific and Medical purposes.

(iv) Any application requesting a frequency in the 72–76 Mc band.

(v) Any application requesting a frequency below 25 Mc.

(vi) Any application requesting a frequency above 470 Mc.

(vii) Any application requesting a freqency assignment on a developmental basis only.

(viii) Any application in the Business Radio Service, where the frequency requested and both immediately adjacent frequencies are available for assignment in that service.

(ix) Any application in the Special Industrial or Business Radio Services specifying an itinerant operation only.

(2) Frequency coordination where required by the provisions of this section may be accomplished by the submission of a report, based on a field study, indicating the degree of probable interference to existing stations operating in the same area. The report shall consider all stations operating on the requested frequency within 75 miles of the proposed station, and all stations operating on any adjacent frequency within 30 kilocycles of the requested frequency and within 35 miles of the proposed station. Further, the applicant shall submit a statement under oath that all existing licensees within the frequency and mileage limits contained herein have been notified of the applicant's intention to request the particular frequency.

(3) In lieu of the report and statement described in subparagraph (2) of this paragraph, the applicant may submit a statement from a frequency advisory committee recommending the specific frequency which in the opinion of the committee will result in the least amount of interference to existing stations operating in the particular area. The frequency advisory committee must be so organized that it is representative of all persons who are eligible for radio facilities in the service concerned in the area the committee purports to serve. In addition to the selection of specific frequencies, committee recommendations may appropriately include comments on other technical factors such as power, antenna height and characteristics which may serve to mitigate any contemplated interference situation. The functions of such committees must be purely advisory in character to the applicant and the Commission, and their recommendations cannot be considered as binding upon either the applicant or the Commission.

2. Amend 11.8 by the addition of the following new paragraphs (i) and (j):

(i) In the frequency range above 150 Mc the Commission may make assignments which are offset from the frequencies set forth in this part in those cases where it can be shown that all suitable listed frequencies are in use in the area concerned, or that for technical reasons a developmental program requires such offset assignment. In either event offset assignments will be made only if the results of an engineering study of each request indicates that the proposed operation can be accomplished without increasing the interference potential, as compared to that which would obtain if a listed frequency were used under the same conditions, and provided, that such offset assignment will not reduce the maximum potential frequency utilization in the area involved. Depending upon the degree of offset and other technical characteristics of the application the Commission may authorize the proposed operation on a developmental basis only.

(j) The bands of frequencies listed in this paragraph are available for assignment to any station in the Industrial Radio Services for narrow-band emission only under the terms of a developmental grant, provided, that the sum of the bandwidth occupied by the modulation and that required for frequency tolerance shall not exceed the limits of the frequency bands indicated. The bands of frequencies available for such assignment are as follows:

| *Mc* |
|---|
| 154.4600–154.4675 |
| 173.2000–173.2075 |
| 173.2075–173.2125 |
| 173.3875–173.3925 |
| 173.3925–173.4000 |

B. Subpart C—Technical Standards, is amended in the following particulars:

1. Amend paragraph (d) of § 11.105 to read as follows:

(d) Each transmitter which is operated on a frequency in the ranges 25–50 Mc, 150–174 Mc, or 450–470 Mc and which is provided with a modulation limiter in accordance with the provisions of paragraph (c) of this section shall also be equipped with an audio low-pass filter: *Provided, however,* That (except for transmitters operating in the range 150.8–152 Mc) this requirement shall not apply until November 1, 1963, to transmitters first authorized or installed prior to November 1, 1958, or to transmitters which are operationally integrated with existing radiocommunication systems which were authorized prior to November 1, 1958. The audio low-pass filter required by the foregoing shall be installed between the modulation limiter and the modulated stage and shall meet the specifications contained in paragraph (e) of this section.

2. Amend paragraph (e) of § 11.105 to read as follows:

(e) At audio frequencies between 3 kc and 15 kc, the low-pass filter required by paragraph (d) of this section shall have an attenuation greater than the attenuation at 1 kc by at least:

$$40 \log_{10} (f/3) \text{ decibels}$$

where "f" is the audio frequency in kilocycles. At audio frequencies above 15 kc, the attenuation shall be at least 28 decibels greater than the attenuation at 1 kc.

3. Delete paragraph (f) and (g) of § 11.105.

C. Subpart F—Power Radio Service, is amended in the following particulars:

1. Amend the table of frequencies appearing in § 11.252 (a) to read as follows:

| *Mc* | *Mc* | *Mc* | *Mc* |
|---|---|---|---|
| 37.46 | 47.80 | 48.12 | 48.44 |
| 37.50 | 47.82 | 48.14 | 48.46 |
| 37.54 | 47.84 | 48.16 | 48.48 |
| 37.58 | 47.86 | 48.18 | 48.50 |
| 37.62 | 47.88 | 48.20 | 48.52 |
| 37.66 | 47.90 | 48.22 | 48.54 |
| 37.70 | 47.92 | 48.24 | 153.41 |
| 37.74 | 47.94 | 48.26 | 153.47 |
| 37.78 | 47.96 | 48.28 | 153.53 |
| 37.82 | 47.98 | 48.30 | 153.59 |
| 37.86 | 48.00 | 48.32 | 153.65 |
| 47.70 | 48.02 | 48.34 | 153.71 |
| 47.72 | 48.04 | 48.36 | 158.13 |
| 47.74 | 48.06 | 48.38 | 158.19 |
| 47.76 | 48.08 | 48.40 | 158.25 |
| 47.78 | 48.10 | 48.42 | |

2. Amend paragraph (b) of § 11.252 to read as follows:

(b) The following frequencies are available for assignment to Base and Mobile Stations in the Power Radio Service except in the States of Texas, Oklahoma, Louisiana, Arkansas, Washington and Oregon:

| *Mc* | *Mc* |
|---|---|
| 153.44 | 158.16 |
| 153.50 | 158.22 |
| 153.56 | 173.25 |
| 153.62 | 173.30 |
| 153.68 | 173.35 |

3. Amend paragraph (a) of § 11.254 to read as follows:

§ 11.254 *Frequencies available for Base, Mobile and Operational Fixed Stations.* (a) The following frequency pairs are available for assignment to stations in the Power Radio Service only in accordance with paragraph (b) of this section:

*Frequency pairs*

| *Base and mobile* | *Mobile only* |
|---|---|
| *Mc* | *Mc* |
| 451.05 | 456.05 |
| 451.10 | 456.10 |
| 451.15 | 456.15 |
| 451.20 | 456.20 |
| 451.25 | 456.25 |

4. Amend the introduction and subparagraph (1) to paragraph (b) of § 11.254 to read as follows:

(b) The frequencies listed in paragraph (a) of this section are available primarily for assignment to Base and Mobile Stations, and secondarily for assignment to Fixed Relay and Control Stations. Not more than one pair of frequencies will be assigned for use by the stations of any single mobile service and radio system, except upon adequate showing of need. Only one frequency of such pair will ordinarily be assigned to any Mobile Station, and the lower frequency of that pair will not be assigned to such Mobile Station unless the system is designed for the single frequency method of operation and the same frequency is also assigned to an associated Base Station. An Operational Fixed Station to be operated as a part of a mobile service radio system may be assigned either of the paired frequencies available to the Base or Mobile Stations of the same mobile service radio system, subject however, to the following additional restrictions and limitations on assignment and use.

(1) All use by Operational Fixed Stations is subject to the condition that harmful interference shall not be caused to stations in the mobile service operating on these frequencies in accordance with the table of frequency allocations as set forth in Part 2 of this chapter.

5. Delete the text of paragraphs (c) and (d) of § 11.254 and substitute the following new paragraphs (c), (d), and (e):

(c) The following frequencies are available for assignment to Base, Mobile, or Operational Fixed Stations in the Power Radio Service on a shared basis with stations in certain other services, subject to no protection from interference due to the operation of industrial, scientific, or medical devices on the frequency 27.12 Mc, and limited to the use of transmitters having not more than 30 watts plate power input to the final radio frequency stage:

| *Frequencies (Mc)* |
|---|
| 27.235 |
| 27.245 |
| 27.255 |
| 27.265 |
| 27.275 |

(d) Notwithstanding the provisions of § 11.103, stations authorized to be operated on the frequencies listed in paragraph (c) of this section may be authorized to utilize any type of emission which occupies a bandwidth not greater than 8 kc.

(e) Stations authorized to be operated on the frequencies listed in paragraph (c) of this section may also be authorized to be operated by self-actuating or other mechanical or electrical means not under the direct control of any individual: *Provided, however,* That, whenever such unattended and uncontrolled operation is authorized, adequate means shall be provided to prevent the transmission of a carrier wave except when modulated for the purpose of transmitting authorized communications or signals.

D. Subpart G—Petroleum Radio Service, is amended in the following particulars:

1. Amend the table of frequencies appearing in § 11.302 (a) to read as follows:

| *Mc* | *Mc* |
|---|---|
| 25.02 | 25.30 |
| 25.06 | 33.18 |
| 25.10 | 33.22 |
| 25.14 | 33.26 |
| 25.18 | 33.30 |
| 25.22 | 33.34 |
| 25.26 | 33.38 |

2. Amend the table of frequencies appearing in § 11.302 (b) to read as follows:

| *Mc* | *Mc* | *Mc* | *Mc* |
|---|---|---|---|
| 30.66 | 48.86 | 49.26 | 153.26 |
| 30.70 | 48.88 | 49.28 | 153.29 |
| 30.74 | 48.90 | 49.30 | 153.32 |
| 30.78 | 48.92 | 49.32 | 153.35 |
| 30.82 | 48.94 | 49.34 | 153.38 |
| 48.56 | 48.96 | 49.36 | [1] 153.44 |
| 48.58 | 48.98 | 49.38 | [1] 153.50 |
| 48.60 | 49.00 | 49.40 | [1] 153.56 |
| 48.62 | 49.02 | 49.42 | [1] 153.62 |
| 48.64 | 49.04 | 49.44 | [1] 153.68 |
| 48.66 | 49.06 | 49.46 | [1] 158.16 |
| 48.68 | 49.08 | 49.48 | [1] 158.22 |
| 48.70 | 49.10 | 49.50 | 158.28 |
| 48.72 | 49.12 | 153.05 | 158.31 |
| 48.74 | 49.14 | 153.08 | 158.37 |
| 48.76 | 49.16 | 153.11 | 158.43 |
| 48.78 | 49.18 | 153.14 | [1] 173.25 |
| 48.80 | 49.20 | 153.17 | [1] 173.30 |
| 48.82 | 49.22 | 153.20 | [1] 173.35 |
| 48.84 | 49.24 | 153.23 | |

[1] Available for assignment only in States of Texas, Oklahoma, Louisiana, Arkansas, Washington and Oregon.

3. Amend paragraph (a) of § 11.304 to read as follows:

§ 11.304 *Frequencies available for Base, Mobile and Operational Fixed Stations.* (a) The following frequency pairs are available for assignment to stations in the Petroleum Radio Service on a shared basis with stations in certain other radio services in accordance with paragraph (b) of this section:

*Frequency Pairs*

| *Base and Mobile* | *Mobile only* |
|---|---|
| *(Mc)* | *(Mc)* |
| 451.55 | 456.55 |
| 451.60 | 456.60 |
| 451.65 | 456.65 |
| 451.70 | 456.70 |
| 451.75 | 456.75 |

4. Amend the introduction and subparagraph (1) to paragraph (b) of § 11.304 to read as follows:

(b) The frequencies listed in paragraph (a) of this section are available primarily for assignment to Base and Mobile Stations, and secondarily for assignment to Fixed Relay and Control Stations. Not more than one pair of frequencies will ordinarily be assigned for use by the stations of any single mobile service radio system, except upon adequate showing of need. Only one frequency of such pair will ordinarily be assigned to any Mobile Station and the lower frequency of that pair will not be assigned to such Mobile Station unless the system is designed for the single frequency method of operation and the same frequency is also assigned to an associated Base Station. An Operational Fixed Station to be operated as a part of a mobile service radio system may be assigned either of the paired frequencies available to the Base or Mobile Stations of the same mobile service radio system, subject, however, to the following additional restrictions and limitations on assignment and use.

(1) All use by Operational Fixed Stations is subject to the condition that harmful interference shall not be caused to stations in the mobile service operating on these frequencies in accordance with the table of frequency allocations as set forth in Part 2 of this chapter.

5. Delete the text of paragraphs (c) and (d) of § 11.304 and substitute the following new paragraphs (c), (d) and (e):

(c) The following frequencies are available for assignment to Base, Mobile, or Operational Fixed Stations in the Petroleum Radio Service (on a shared basis with stations in certain other services), subject to no protection from interference due to the operation of industrial, scientific, or medical devices on the frequency 27.12 Mc, and limited to the use of transmitters having not more than 30 watts plate power input to the final radio frequency stage:

| *Frequencies (Mc)* |
|---|
| 27.235 |
| 27.245 |
| 27.255 |
| 27.265 |
| 27.275 |

(d) Notwithstanding the provisions of § 11.103, stations authorized to be operated on the frequencies listed in paragraph (c) of this section may be authorized to transmit thereon any type of emission which occupies a bandwidth not greater than 8 kc.

(e) Stations authorized to be operated on the frequencies listed in paragraph (c) of this section may also be authorized to be operated thereon by self-actuating or other electrical or mechanical means not under the direct control of any individual: *Provided, however,* That whenever such unattended and uncontrolled operation is authorized, adequate means shall be provided to prevent the transmission of a carrier wave except when modulated for the purpose of transmitting authorized communications or signals.

E. Subpart H—Forest Products Radio Service, is amended in the following particulars:

1. Amend the table of frequencies appearing in § 11.352 (a) to read as follows:

| Mc |
|---|
| 29.73 |
| 29.77 |

2. Amend the table of frequencies appearing in § 11.352 (b) to read as follows:

| Mc | Mc | Mc | Mc |
|---|---|---|---|
| 48.56 | 48.94 | 49.32 | 153.32 |
| 48.58 | 48.96 | 49.34 | 153.35 |
| 48.60 | 48.98 | 49.36 | 153.38 |
| 48.62 | 49.00 | 49.38 | [1] 153.44 |
| 48.64 | 49.02 | 49.40 | [1] 153.50 |
| 48.66 | 49.04 | 49.42 | [1] 153.56 |
| 48.68 | 49.06 | 49.44 | [1] 153.62 |
| 48.70 | 49.08 | 49.46 | [1] 153.68 |
| 48.72 | 49.10 | 49.48 | [1] 158.16 |
| 48.74 | 49.12 | 49.50 | [1] 158.22 |
| 48.76 | 49.14 | 153.05 | 158.28 |
| 48.78 | 49.16 | 153.08 | 158.31 |
| 48.80 | 49.18 | 153.11 | 158.37 |
| 48.82 | 49.20 | 153.14 | 158.43 |
| 48.84 | 49.22 | 153.17 | [1] 173.25 |
| 48.86 | 49.24 | 153.20 | [1] 173.30 |
| 48.88 | 49.26 | 153.23 | [1] 173.35 |
| 48.90 | 49.28 | 153.26 | |
| 48.92 | 49.30 | 153.29 | |

[1] Available for assignment only in States of Texas, Oklahoma, Louisiana, Arkansas, Washington and Oregon.

3. Amend paragraph (a) of § 11.354 to read as follows:

§ 11.354 *Frequencies available for Base, Mobile and Operational Fixed Stations.* (a) The following frequency pairs are available for assignment to stations in the Forest Products Radio Service on a shared basis with certain other radio services in accordance with paragraph (b) of this section:

*Frequency Pairs*

| *Base and Mobile (Mc)* | *Mobile only (Mc)* |
|---|---|
| 451.55 | 456.55 |
| 451.60 | 456.60 |
| 451.65 | 456.65 |
| 451.70 | 456.70 |
| 451.75 | 456.75 |

4. Amend the introduction and subparagraph (1) to paragraph (b) of § 11.354 to read as follows:

(b) The frequencies listed in paragraph (a) of this section are available primarily for assignment to Base and Mobile Stations, and secondarily for assignment to Fixed Relay and Control Stations. Not more than one pair of frequencies will ordinarily be assigned for use by the stations of any single mobile service radio system, except upon adequate showing of need. Only one frequency of such pair will ordinarily be assigned to any Mobile Station and the lower frequency of that pair will not be assigned to such Mobile Station unless the system is designed for the single frequency method of operation and the same frequency is also assigned to an associated Base Station. An Operational Fixed Station to be operated as a part of a mobile service radio system may be assigned either of the paired frequencies available to the Base or Mobile Stations of the same mobile service radio system, subject however, to the following additional restrictions and limitations on assignment and use.

(1) All use by Operational Fixed Stations is subject to the condition that harmful interference shall not be caused to stations in the mobile service operating on these frequencies in accordance with the table of frequency allocations as set forth in Part 2 of this chapter.

5. Delete the text of paragraphs (c) and (d) of § 11.354 and substitute the following new paragraphs (c), (d) and (e):

(c) The following frequencies are available for assignment to Base, Mobile, or Operational Fixed Stations in the Forest Products Radio Service (on a shared basis with stations in certain other services), subject to no protection from interference due to the operation of industrial, scientific, or medical devices on the frequency 27.12 Mc, and limited to the use of transmitters having not more than 30 watts plate power input to the final radio frequency stage:

| *Frequencies (Mc)* |
|---|
| 27.235 |
| 27.245 |
| 27.255 |
| 27.265 |
| 27.275 |

(d) Notwithstanding the provisions of § 11.103, stations authorized to be operated on the frequencies listed in paragraph (c) of this section may be authorized to transmit thereon any type of emission which occupies a bandwidth not greater than 8 kc.

(e) Stations authorized to be operated on the frequencies listed in paragraph (c) of this section may also be authorized to be operated by self-actuating or other electrical or mechanical means not under the direct control of any individual: *Provided, however,* That, whenever such unattended and uncontrolled operation is authorized, adequate means shall be provided to prevent the transmission of a carrier wave except when modulated for the purpose of transmitting authorized communications or signals.

F. Subpart I—Motion Picture Radio Service, is amended in the following particulars:

1. Amend the table of frequencies appearing in § 11.402 (a) to read as follows:

| Mc | Mc |
|---|---|
| 152.87 | 153.02 |
| 152.90 | 173.225 |
| 152.93 | 173.275 |
| 152.96 | 173.325 |
| 152.99 | 173.375 |

2. Delete the text of paragraphs (a), (b), (c) and (d) of § 11.404 and substitute the following:

§ 11.404 *Frequencies available for Base, Mobile and Operational Fixed Stations.* (a) The following frequencies are available for assignment to Base, Mobile, or Operational Fixed Stations in the Motion Picture Radio Service (on a shared basis with stations in certain other services), subject to no protection from interference due to the operation of industrial, scientific, or medical devices on the frequency 27.12 Mc, and limited to the use of transmitters having not more than 30 watts plate power input to the final radio frequency stage:

| *Frequencies (Mc)* |
|---|
| 27.235 |
| 27.245 |
| 27.255 |
| 27.265 |
| 27.275 |

(b) Notwithstanding the provisions of § 11.103, stations authorized to be operated on the frequencies listed in paragraph (a) of this section may be authorized to transmit thereon any type of emission which occupies a bandwidth not greater than 8 kc.

(c) Stations authorized to be operated on the frequencies listed in paragraph (a) of this section may also be authorized to be operated thereon by self-actuating or other electrical or mechanical means not under the direct control of any individual: *Provided, however,* That whenever such unattended and uncontrolled operation is authorized, adequate means shall be provided to prevent the transmission of a carrier wave except when modulated for the purpose of transmitting authorized communications or signals.

G. Subpart J—Relay Press Radio Service, is amended in the following particulars:

1. Delete the text of paragraphs (a), (b), (c) and (d) of § 11.454 and substitute the following:

§ 11.454 *Frequencies available for Base, Mobile and Operational Fixed Stations.* (a) The following frequencies are available for assignment to Base, Mobile, or Operational Fixed Stations in the Relay Press Radio Service (on a shared basis with stations in certain other services), subject to no protection from interference due to the operation of industrial, scientific, or medical devices on the frequency 27.12 Mc, and limited to the use of transmitters having not more than 30 watts plate power input to the final radio frequency stage:

| *Frequencies (Mc)* |
|---|
| 27.235 |
| 27.245 |
| 27.255 |
| 27.265 |
| 27.275 |

(b) Notwithstanding the provisions of § 11.103, stations authorized to be operated on the frequencies listed in paragraph (a) of this section may be authorized to transmit thereon any type of emission which occupies a bandwidth not greater than 8 kc.

(c) Stations authorized to be operated on the frequencies listed in paragraph (a) of this section may also be authorized to be operated thereon by self-actuating or other electrical or mechanical means not under the direct control of any individual: *Provided, however,* That whenever such unattended and uncontrolled operation is authorized, adequate means shall be provided to prevent the transmission of a carrier wave except when modulated for the purpose of transmitting authorized communications or signals.

H. Delete the present index references, titles and texts of Subpart K, Special Industrial Radio Service, and substitute the following new index references, titles and texts:

## SUBPART K—SPECIAL INDUSTRIAL RADIO SERVICE

Sec.
11.501 Eligibility.
11.502 Availability and use of service.
11.503 Station limitations.
11.504 Frequencies available.
11.505 Ineligible licensees.
11.506 Unlisted frequencies.

AUTHORITY: §§ 11.501 to 11.506 issued under sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303.

§ 11.501 *Eligibility.* The following persons are eligible to hold authorizations to operate radio stations in the Special Industrial Radio Service:

(a) Persons regularly engaged in the operation of farms or ranches or similar land installations for the quantity production of crops or plants, vines or trees (excluding forestry operations), or for the keeping, grazing or feeding of livestock for animal products, animal increase or value enhancement.

(b) Persons operating a commercial business regularly engaged in the construction of roads, bridges, sewers, pipelines, airfields, water, oil, gas or power production, collection or distribution systems and other engineering projects normally classified as heavy construction activities.

(c) Persons regularly engaged in the operation of mines for the recovery of solid fuels, minerals or metals from the earth or the sea, including the exploration for and development of mining properties.

(d) Persons operating a commercial business regularly rendering certain specialized services essential either to industrial operations or public health. Eligibility for these specialized services is limited to the following:

(1) Plowing, soil conditioning, seeding, fertilizing, or harvesting for agricultural or forestry activities.

(2) The spraying or dusting of insecticides, herbacides or fungicides in areas other than enclosed structures.

(3) Livestock breeding service.

(4) Maintaining, patroling and repairing of gas or liquid transmission pipelines, tank cars, water or waste disposal wells, industrial storage tanks, or distribution systems of public utilities.

(5) Acidizing, cementing, logging, perforating, or shooting activities, and services of a similar nature incident to the drilling of new oil or gas wells, or the maintenance of production from established wells.

(6) Supplying of chemicals, mud, tools, pipe and other unique materials or equipment to the petroleum production industry as the primary activity of the applicant: *Provided*, That the delivery, installation or application of these materials require on the part of the supplier the use of specially fitted conveyances and unusual skills.

(7) The delivery of ice or fuel to the consumer in solid, liquid or gaseous form for heating, lighting, refrigerating or power generation purposes, by means other than pipelines or railroads.

(8) The delivering and pouring of ready-mixed concrete or hot asphalt mix.

(e) A subsidiary corporation proposing to furnish a non-profit communications service to its parent corporation or another subsidiary of the same parent where the party to be served is engaged in one of the activities set forth above.

§ 11.502 *Availability and use of service.* (a) The initial application from a person claiming eligibility in this service must be accompanied by a statement in detail sufficient to indicate clearly such eligibility.

(b) Authorizations to operate stations in this service are available only to the extent and for the purposes set forth in this subpart and the operation of all stations licensed hereunder shall be strictly confined to those activities on which the eligibility was established, except for transmissions relating to an immediate emergency involving the safety of life or property. Communications relating to any of the following shall not be transmitted by any station licensed in the Special Industrial Radio Service:

(1) Sales reports, or the dispatch of salesmen;

(2) Payrolls, accounts or inventory control;

(3) Any message relating to the retail delivery of any item or product, except where such retail delivery is specifically included in the eligibility provisions of this subpart; or

(4) Any message where the time element is not of immediate importance.

(c) Persons engaging in activities some of which are eligible under this subpart and some of which are not, and desiring to use radio in connection with both types should apply for authorization in the Business Radio Service.

§ 11.503 *Station limitations.* (a) Mobile relay stations will not be authorized in the Special Industrial Radio Service within the continental limits of the United States, except when such stations and all associated control and mobile stations are to be operated exclusively on frequencies above 450 Mc: *Provided, however,* That this restriction shall not apply to the continued licensing of mobile relay systems authorized prior to November 1, 1955.

(b) Fixed stations will be licensed in the Special Industrial Radio Services only on a limited basis and extensive licensing of point to point systems must await further development of the Commission's microwave program. Request for point to point facilities, which will be considered on a case by case basis, should clearly establish either of the following:

(1) That the requested fixed stations are required to provide communications between isolated establishments with no other means of communication or from such establishments to points at which other communication facilities are available, or that all fixed stations operate in the frequency range 27.235 through 27.255 Mc.

(2) That the use of a control or fixed relay link is necessary for the operation of a remotely located base station and the fixed stations concerned are used exclusively as integral parts of a mobile service system.

(c) Base or mobile stations being utilized in itinerant operations at various temporary locations and not associated with a permanent service area will be authorized only on frequencies indicated for itinerant use or for general use.

§ 11.504 *Frequencies available.* (a) The following tabulation indicates the frequencies or bands of frequencies available for assignment to stations in the Special Industrial Radio Service together with the class of station(s) to which they are normally assigned, a general reference terminology and the specific assignment limitations, which are developed in paragraph (b) of this section:

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| *Kc* | | | |
| 2282 | Base or mobile | General use | 10 |
| 2398 | do | do | 10 |
| 4637.5 | do | do | 10 |
| *Mc* | | | |
| 27.235 | Base, mobile or fixed | ISM General use | 2, 8 |
| 27.245 | do | do | 2, 8 |
| 27.255 | do | do | 2, 8 |
| 27.265 | do | do | 2, 8 |
| 27.275 | do | do | 2, 8 |
| 27.29 | Base or mobile | General use | |
| 27.31 | do | do | |
| 27.33 | do | do | |
| 27.35 | do | do | |
| 27.37 | do | do | |
| 30.58 | do | Permanent use | 11 |
| 30.62 | do | do | 11 |
| 35.74 | do | do | 11 |
| 35.76 | do | do | 11 |
| 35.78 | do | do | 11 |
| 35.80 | do | do | 11 |
| 35.82 | do | do | 11 |
| 35.84 | do | do | 11 |
| 35.86 | do | do | 11 |
| 40.68 | Operational fixed | Hydrological | 4, 5 |
| 43.02 | Base or mobile | General use | |
| 43.04 | do | Itinerant use | 12 |
| 43.06 | do | General use | |
| 43.08 | do | do | |
| 43.10 | do | do | |
| 43.12 | do | do | |
| 43.14 | do | do | |
| 43.18 | do | Permanent use | 11 |
| 47.44 | do | do | 11 |
| 47.48 | do | do | 11 |
| 47.52 | do | do | 11 |
| 47.56 | do | do | 11 |
| 47.60 | do | do | 11 |
| 47.64 | do | do | 11 |
| 47.68 | do | do | 11 |

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| Mc | | | |
| 72.02 | Operational fixed | 72 Mc fixed | 3 |
| 72.06 | do | do | 3 |
| 72.10 | do | do | 3 |
| 72.14 | do | do | 3 |
| 72.18 | do | do | 3 |
| 72.22 | do | do | 3 |
| 72.26 | do | do | 3 |
| 72.30 | do | do | 3 |
| 72.34 | do | do | 3 |
| 72.38 | do | do | 3 |
| 72.42 | do | do | 3 |
| 72.46 | do | do | 3 |
| 72.50 | do | do | 3 |
| 72.54 | do | do | 3 |
| 72.58 | do | do | 3 |
| 72.62 | do | do | 3 |
| 72.66 | do | do | 3 |
| 72.70 | do | do | 3 |
| 72.74 | do | do | 3 |
| 72.78 | do | do | 3 |
| 72.82 | do | do | 3 |
| 72.86 | do | do | 3 |
| 72.90 | do | do | 3 |
| 72.94 | do | do | 3 |
| 72.98 | do | do | 3 |
| 73.02 | do | do | 3 |
| 73.06 | do | do | 3 |
| 73.10 | do | do | 3 |
| 73.14 | do | do | 3 |
| 73.18 | do | do | 3 |
| 73.22 | do | do | 3 |
| 73.26 | do | do | 3 |
| 73.30 | do | do | 3 |
| 73.34 | do | do | 3 |
| 73.38 | do | do | 3 |
| 73.42 | do | do | 3 |
| 73.46 | do | do | 3 |
| 73.50 | do | do | 3 |
| 73.54 | do | do | 3 |
| 73.58 | do | do | 3 |
| 73.62 | do | do | 3 |
| 73.66 | do | do | 3 |
| 73.70 | do | do | 3 |
| 73.74 | do | do | 3 |
| 73.78 | do | do | 3 |
| 73.82 | do | do | 3 |
| 73.86 | do | do | 3 |
| 73.90 | do | do | 3 |
| 73.94 | do | do | 3 |
| 73.98 | do | do | 3 |
| 74.02 | do | do | 3 |
| 74.06 | do | do | 3 |
| 74.10 | do | do | 3 |
| 74.14 | do | do | 3 |
| 74.18 | do | do | 3 |
| 74.22 | do | do | 3 |
| 74.26 | do | do | 3 |
| 74.30 | do | do | 3 |
| 74.34 | do | do | 3 |
| 74.38 | do | do | 3 |
| 74.42 | do | do | 3 |
| 74.46 | do | do | 3 |
| 74.50 | do | do | 3 |
| 74.54 | do | do | 3 |
| 74.58 | do | do | 3 |
| 75.42 | do | do | 3 |
| 75.46 | do | do | 3 |
| 75.50 | do | do | 3 |
| 75.54 | do | do | 3 |
| 75.58 | do | do | 3 |
| 75.62 | do | do | 3 |
| 75.66 | do | do | 3 |
| 75.70 | do | do | 3 |
| 75.74 | do | do | 3 |
| 75.78 | do | do | 3 |
| 75.82 | do | do | 3 |
| 75.86 | do | do | 3 |
| 75.90 | do | do | 3 |
| 75.94 | do | do | 3 |
| 75.98 | do | do | 3 |

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| Mc | | | |
| 151.505 | Base or mobile | Itinerant use | 12 |
| 151.535 | do | Permanent use | 11 |
| 151.565 | do | do | 11 |
| 151.595 | do | do | 11 |
| 151.97 | do | General use | 13 |
| 152.90 | do | Permanent use | 11, 13 |
| 152.93 | do | do | 11, 13 |
| 152.96 | do | do | 11, 13 |
| 152.99 | do | do | 11, 13 |
| 153.02 | do | do | 11, 13 |
| 154.49 | do | do | 11 |
| 158.49 | do | Itinerant use | 12 |
| 160.425 | Operational fixed | Hydrological | 4 |
| 160.475 | do | do | 4 |
| 160.525 | do | do | 4 |
| 160.575 | do | do | 4 |
| 170.225 | do | do | 4 |
| 170.275 | do | do | 4 |
| 170.325 | do | do | 4 |
| 170.375 | do | do | 4 |
| 171.025 | do | do | 4 |
| 171.075 | do | do | 4 |
| 171.125 | do | do | 4 |
| 171.175 | do | do | 4 |
| 171.825 | do | do | 4 |
| 171.875 | do | do | 4 |
| 171.925 | do | do | 4 |
| 171.975 | do | do | 4 |
| 406.050 | do | do | 4, 6 |
| 406.150 | do | do | 4, 6 |
| 406.250 | do | do | 4, 6 |
| 406.350 | do | do | 4, 6 |
| 406.450 | do | do | 4, 6 |
| 406.550 | do | do | 4, 6 |
| 406.650 | do | do | 4, 6 |
| 406.750 | do | do | 4, 6 |
| 451.80 | Base or mobile | Itinerant use | 9, 12 |
| 451.85 | do | Permanent use | 9, 11 |
| 451.90 | do | do | 9, 11 |
| 451.95 | do | do | 9, 11 |
| 456.80 | Mobile | Itinerant use | 7, 9, 12 |
| 456.85 | do | Permanent use | 7, 9, 11 |
| 456.90 | do | do | 7, 9, 11 |
| 456.95 | do | do | 7, 9, 11 |
| 902-960 | Operational fixed | Microwave fixed | 1 |
| 1850-1990 | do | do | 1 |
| 2110-2200 | do | do | 1 |
| 2400-2500 | Base, Mobile, Fixed | 2450 Mc ISM | 1, 2 |
| 2500-2700 | Operational fixed | Microwave fixed | 1 |
| 6425-6575 | Base or mobile | Microwave mobile | 1 |
| 6575-6875 | Operational fixed | Microwave fixed | 1 |
| 10550-10700 | do | do | 1 |
| 11700-12200 | Base or mobile | Microwave mobile | 1 |
| 12200-12700 | Operational fixed | Microwave fixed | 1 |
| 12700-13225 | do | do | 1 |
| 14000-18000 | do | do | 1, 2 |
| 22000-30000 | do | do | 1 |

(b) Explanation of assignment limitations appearing in the frequency tabulation of this section:

(1) Limited to developmental operation only with the assigned frequency and particulars of operation specified in each authorization.

(2) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific or medical devices.

(3) Use of this frequency is subject to the condition that no harmful interference will be caused to the reception of television channels 4 or 5. Assignments will be made only in accordance with the criteria set forth in § 11.8.

(4) This frequency will be assigned only for the specific purpose of transmitting hydrological or meteorological data. The use of this frequency is subject to the condition that harmful interference will not be caused to Federal Government stations, and further, that the hydrological or meteorological data being handled is made available to interested governmental agencies. Other rule provisions of this part notwithstanding, an operational fixed station operat-

ing on this frequency shall not engage in communications with any station in the mobile service unless written authorization to do so has been obtained from the Commission. Persons who desire to operate stations on this frequency should communicate with the Commission for instructions concerning the procedure to be followed in filing formal application.

(5) Use of this frequency is limited to stations located in the States of Pennsylvania and West Virginia only and is subject to no protection from interference due to the operation of industrial, scientific or medical devices on this frequency.

(6) This frequency is intended for use primarily by fixed relay stations.

(7) This frequency will not be assigned to base stations.

(8) Other rule provisions of this part notwithstanding, this frequency may be authorized for use with any type of emission which does not exceed an occupied bandwidth of 8 kilocycles, for intermittent transmissions; further, authorizations may be issued to permit operation on this frequency by self-actuating or other electrical or mechanical means not under the direct control of any individual. All operations on this frequency are limited to a maximum plate power input of 30 watts to the final radio frequency stage.

(9) This frequency is available for assignment on a secondary basis to fixed relay or control stations which operate as integral parts of a radio circuit over which messages are sent to or received from a mobile station without interruption for manual relaying, provided that such operation causes no harmful interference to base or mobile stations, and further provided, that this frequency will not be assigned for such control or relay operation in any instance where its use will be in a radio circuit which involves more than two automatic retransmissions in each direction on mobile service frequencies.

(10) Frequencies below 25 Mc will be assigned to base or mobile stations in this service only upon a satisfactory showing that, from a safety of life standpoint, frequencies above 25 Mc will not meet the operational requirements of the applicant. This frequency is available for assignment in many areas; however, in individual cases such assignment may be impracticable due to conflicting frequency use authorized to stations in other services by this and other countries. In such cases a substitute frequency, if found to be available, may be assigned from the following bands 1605–1750, 2107–2170, 2194–2495, 2505–2850, 3155–3400 or 4438–4650 kc. Since such assignments are in certain instances subject to additional technical and operational limitations, it is necessary that each application also include precise information concerning transmitter output power, type and directional characteristics, if any, of the antenna, and the minimum necessary hours of operation.

(11) This frequency will be assigned only to stations which are restricted in operation to a specified permanent area for which frequency coordination has been accomplished.

(12) This frequency will be assigned only to stations used in itinerant operations, which require that the station be transferred from time to time to various temporary communication areas.

(13) This frequency is shared with the Motion Picture Radio Service.

§ 11.505 *Ineligible licensees.* Persons presently ineligible in this service, but properly authorized to operate herein prior to June 15, 1958, may continue to operate under appropriate authorization until June 15, 1963; provided, however, that frequency modification will be required if the radio system is operating on any frequency, the availability of which will not extend until June 15, 1963. During the five-year period all affected authorizations will be eligible for appropriate renewals and any modification which does not constitute an assignment of license to a new licensee.

§ 11.506 *Unlisted frequencies.* (a) Radio systems authorized to operate in the band 49.6–50.0 Mc previously available to this service may continue to operate until the expiration of the existing licenses or until December 31, 1959, whichever is later. Where a single system involves licenses with different expiration dates, the date of the last expiring license will be considered the system expiration date and all authorization expiring prior to that date may be extended to, but not beyond, the date of the last expiring license.

(b) Radio systems authorized to operate on the frequencies 49.54 or 49.58 Mc, or other unlisted frequencies, may continue to operate on these frequencies under appropriate authorization until April 1, 1963.

(c) The fact that an authorized radio system is affected by the provisions of paragraph (a) or (b) of this section shall not be considered as a bar to modification, assignment or transfer of the authorization.

I. Delete the present index references, titles and text of Subpart L, Low Power Industrial Radio Service, and substitute the following new index references, titles and texts:

SUBPART L—BUSINESS RADIO SERVICE

Sec.
11.551 Eligibility.
11.552 Availability and use of service.
11.553 Station limitations.
11.554 Frequencies available.

AUTHORITY: §§ 11.551 to 11.554 issued under sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303.

§ 11.551 *Eligibility.* The following persons when engaged in lawful activities are eligible to hold authorizations to operate radio stations in the Business Radio Service:

(a) Any person engaged in a commercial activity.

(b) Educational or philanthropic institutions.

(c) Clergymen or ecclesiastical institutions.

(d) Hospitals, clinics and medical associations.

(e) A subsidiary corporation proposing to furnish a nonprofit radiocommunication service to its parent corporation or to another subsidiary of the same parent where the party to be served is engaged in one of the activities set forth above.

§ 11.552 *Availability and use of service.* (a) The Business Radio Service is available to the extent indicated in the eligibility provisions of this subpart and is intended for use by those eligibles without restriction as to the types of messages transmitted as long as they are necessary to the accomplishment of the business activity concerned; provided however, that all stations licensed in this service must accord first priority for the use of the frequency concerned to any station transmitting communications resulting from an actual emergency involving immediate danger to life or property.

(b) Each application for an authorization in the Business Radio Service shall be complete in itself including any necessary showings or attachments and without cross reference to information previously filed. Applications for modification of an existing station must show in precise detail all particulars of the desired operation; repeating in exact accordance those particulars of the outstanding authorization not being affected by the modification and including new entries in the appropriate items to reflect the changes desired.

(c) Pursuant to the provisions of § 11.8, frequencies authorized to stations in the Business Radio Service can be used only on a shared and cooperative basis. Any licensee in this service must expect operations in the same area by other licensees on the same frequency, and must cooperate fully in the joint use of the assigned frequency. In areas of extreme frequency congestion, the Commission may require monitoring of the assigned frequency before transmitting.

(d) In any area where the shared use of frequencies in the Business Radio Service results in an uneven distribution of the total communications load between the available frequencies, the Commission will consider applications for appropriate frequency change.

§ 11.553 *Station limitations.* (a) Mobile relay stations will not be authorized in the Business Radio Service within the continental limits of the United States, except when such stations and all associated control and mobile stations are to be operated exclusively on frequencies above 450 Mc.

(b) Fixed stations will be licensed in the Business Radio Service only on a limited basis and extensive licensing of point-to-point systems must await further development of the Commission's microwave program. Request for point-to-point facilities, which will be considered on a case-by-case basis, should clearly establish either of the following:

(1) That the requested fixed stations are required to provide communications between isolated establishments with no other means of communication or from such establishments to points at which other communication facilities are available, or that all fixed stations operate in

the frequency range 27.235 through 27.255 Mc.

(2) That the use of a control or fixed relay link is necessary for the operation of a remotely located base station and the fixed stations concerned are used exclusively as an integral part of a mobile service system.

(c) Base or mobile stations being utilized in itinerant operations at various temporary locations and not associated with a permanent service area will be authorized only on frequencies indicated for itinerant use or for general use.

§ 11.554 *Frequencies available.* (a) The following tabulation indicates the frequencies or bands of frequencies available for assignment to stations in the Business Radio Service together with the class of station(s) to which they are normally assigned, a general reference terminology and the specific assignment limitations, which are developed in paragraph (b) of this section:

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| *Mc* | | | |
| 27.235 | Base, mobile or fixed | ISM general use | 2 8 |
| 27.245 | do | do | 2 8 |
| 27.255 | do | do | 2 8 |
| 27.265 | do | do | 2 8 |
| 27.275 | do | do | 2 8 |
| 27.29 | Base or mobile | General use | |
| 27.41 | do | do | |
| 27.43 | do | Permanent use | 10, 11 |
| 27.45 | do | do | 10, 11 |
| 27.47 | do | do | 10, 11 |
| 27.49 | do | Itinerant use | 10, 12 |
| 27.51 | Mobile | Low power general use | 13 |
| 27.53 | do | do | 13 |
| 33.14 | do | do | 13, 14 |
| 35.02 | do | do | 13, 14 |
| 35.04 | Base or mobile | Itinerant use | 10, 12 |
| 35.06 | do | Permanent use | 10, 11 |
| 35.08 | do | do | 10, 11 |
| 35.10 | do | do | 10, 11 |
| 35.12 | do | do | 10, 11 |
| 35.14 | do | do | 10, 11 |
| 35.18 | do | do | 10, 11 |
| 35.70 | do | do | 11 |
| 35.72 | do | do | 11 |
| 35.88 | do | do | 10, 11 |
| 35.90 | do | do | 10, 11 |
| 35.92 | do | do | 10, 11 |
| 35.94 | do | General use | |
| 35.96 | do | do | |
| 35.98 | do | do | |
| 40.68 | Operational fixed | Hydrological | 4, 5 |
| 42.96 | Base or mobile | Permanent use | 10, 11 |
| 42.98 | Mobile | Low Power general use | 13, 14 |
| 43.00 | Base or mobile | Permanent use | 10, 11 |
| 72.02 | Operational fixed | 72 Mc fixed | 3 |
| 72.06 | do | do | 3 |
| 72.10 | do | do | 3 |
| 72.14 | do | do | 3 |
| 72.18 | do | do | 3 |
| 72.22 | do | do | 3 |
| 72.26 | do | do | 3 |
| 72.30 | do | do | 3 |
| 72.34 | do | do | 3 |
| 72.38 | do | do | 3 |
| 72.42 | do | do | 3 |
| 72.46 | do | do | 3 |
| 72.50 | do | do | 3 |
| 72.54 | do | do | 3 |
| 72.58 | do | do | 3 |
| 72.62 | do | do | 3 |
| 72.66 | do | do | 3 |
| 72.70 | do | do | 3 |
| 72.74 | do | do | 3 |
| 72.78 | do | do | 3 |
| 72.82 | do | do | 3 |
| 72.86 | do | do | 3 |
| 72.90 | do | do | 3 |
| 72.94 | do | do | 3 |
| 72.98 | do | do | 3 |
| 73.02 | do | do | 3 |
| 73.06 | do | do | 3 |
| 73.10 | do | do | 3 |
| 73.14 | Operational fixed | 72 Mc fixed | 3 |
| 73.18 | do | do | 3 |
| 73.22 | do | do | 3 |
| 73.26 | do | do | 3 |
| 73.30 | do | do | 3 |
| 73.34 | do | do | 3 |
| 73.38 | do | do | 3 |
| 73.42 | do | do | 3 |
| 73.46 | do | do | 3 |
| 73.50 | do | do | 3 |
| 73.54 | do | do | 3 |
| 73.58 | do | do | 3 |
| 73.62 | do | do | 3 |
| 73.66 | do | do | 3 |
| 73.70 | do | do | 3 |
| 73.74 | do | do | 3 |
| 73.78 | do | do | 3 |
| 73.82 | do | do | 3 |
| 73.86 | do | do | 3 |
| 73.90 | do | do | 3 |
| 73.94 | do | do | 3 |
| 73.98 | do | do | 3 |
| 74.02 | do | do | 3 |
| 74.06 | do | do | 3 |
| 74.10 | do | do | 3 |
| 74.14 | do | do | 3 |
| 74.18 | do | do | 3 |
| 74.22 | do | do | 3 |
| 74.26 | do | do | 3 |
| 74.30 | do | do | 3 |
| 74.34 | do | do | 3 |
| 74.38 | do | do | 3 |
| 74.42 | do | do | 3 |
| 74.46 | do | do | 3 |
| 74.50 | do | do | 3 |
| 74.54 | do | do | 3 |
| 74.58 | do | do | 3 |
| 75.42 | do | do | 3 |
| 75.46 | do | do | 3 |
| 75.50 | do | do | 3 |
| 75.54 | do | do | 3 |
| 75.58 | do | do | 3 |
| 75.62 | do | do | 3 |
| 75.66 | do | do | 3 |
| 75.70 | do | do | 3 |
| 75.74 | do | do | 3 |
| 75.78 | do | do | 3 |
| 75.82 | do | do | 3 |
| 75.86 | do | do | 3 |
| 75.90 | do | do | 3 |
| 75.94 | do | do | 3 |
| 75.98 | do | do | 3 |
| 151.625 | Base or mobile | Itinerant use | 10, 12 |
| 151.655 | do | Permanent use | 10, 11 |
| 151.685 | do | do | 10, 11 |
| 151.715 | do | do | 10, 11 |
| 151.745 | do | do | 10, 11 |
| 151.775 | do | do | 10, 11 |
| 151.805 | do | do | 10, 11 |
| 151.835 | do | do | 10, 11 |
| 151.865 | do | do | 10, 11 |
| 151.895 | do | do | 10, 11 |
| 151.925 | do | General use | |
| 151.955 | do | do | |
| 152.300 | do | Permanent use | 15 |
| 152.360 | do | do | 15 |
| 152.420 | do | do | 15 |
| 154.540 | do | do | 10, 11 |
| 154.570 | Mobile | Low Power general use | 13, 14 |
| 154.600 | do | do | 13, 14 |
| 157.530 | Base or Mobile | Permanent use | 15 |
| 157.620 | do | do | 15 |
| 157.680 | do | do | 15 |
| 169.425 | Operational fixed | Hydrological | 4 |
| 169.475 | do | do | 4 |
| 169.525 | do | do | 4 |
| 169.575 | do | do | 4 |
| 170.225 | do | do | 4 |
| 170.275 | do | do | 4 |
| 170.325 | do | do | 4 |

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| *Mc* | | | |
| 170.375 | Operational fixed | Hydrological | 4 |
| 171.025 | do | do | 4 |
| 171.075 | do | do | 4 |
| 171.125 | do | do | 4 |
| 171.175 | do | do | 4 |
| 171.825 | do | do | 4 |
| 171.875 | do | do | 4 |
| 171.925 | do | do | 4 |
| 171.975 | do | do | 4 |
| 406.030 | do | do | 4, 6 |
| 406.150 | do | do | 4, 6 |
| 406.250 | do | do | 4, 6 |
| 406.350 | do | do | 4, 6 |
| 406.450 | do | do | 4, 6 |
| 406.550 | do | do | 4, 6 |
| 406.650 | do | do | 4, 6 |
| 406.750 | do | do | 4, 6 |
| 461.05 | Base or Mobile | Permanent use | 10, 11 |
| 461.10 | do | do | 10, 11 |
| 461.15 | do | do | 10, 11 |
| 461.20 | do | do | 10, 11 |
| 461.25 | do | do | 10, 11 |
| 461.30 | do | do | 10, 11 |
| 461.35 | do | do | 10, 11 |
| 461.40 | do | do | 10, 11 |
| 461.45 | do | do | 10, 11 |
| 461.50 | do | do | 10, 11 |
| 461.55 | do | do | 10, 11 |
| 461.60 | do | do | 10, 11 |
| 461.65 | do | do | 10, 11 |
| 461.70 | do | do | 10, 11 |
| 461.75 | do | do | 10, 11 |
| 461.80 | do | do | 10, 11 |
| 461.85 | do | do | 10, 11 |
| 461.90 | do | do | 10, 11 |
| 461.95 | do | do | 10, 11 |
| 462.00 | do | do | 10, 11 |
| 463.25 | do | do | 10, 11, 16 |
| 463.30 | do | do | 10, 11, 16 |
| 463.35 | do | do | 10, 11, 16 |
| 463.40 | do | do | 10, 11, 16 |
| 463.45 | do | do | 10, 11, 16 |
| 463.50 | do | do | 10, 11, 16 |
| 463.55 | do | do | 10, 11, 16 |
| 463.60 | do | do | 10, 11, 16 |
| 463.65 | do | do | 10, 11, 16 |
| 463.70 | do | do | 10, 11, 16 |
| 463.75 | do | do | 10, 11, 16 |
| 463.80 | do | do | 10, 11, 16 |
| 463.85 | do | do | 10, 11, 16 |
| 463.90 | do | do | 10, 11, 16 |
| 463.95 | do | do | 10, 11, 16 |
| 464.00 | do | do | 10, 11, 16 |
| 464.05 | do | do | 10, 11, 16 |
| 464.10 | do | do | 10, 11, 16 |
| 464.15 | do | do | 10, 11, 16 |
| 464.20 | do | do | 10, 11, 16 |
| 464.25 | do | do | 9, 11, 16, 17 |
| 464.30 | do | do | 9, 11, 16, 17 |
| 464.35 | do | do | 9, 11, 16, 17 |
| 464.40 | do | do | 9, 11, 16, 17 |
| 464.45 | do | do | 9, 11, 16, 17 |
| 464.50 | do | Itinerant use | 12, 16, 17 |
| 464.55 | do | do | 12, 16, 17 |
| 464.60 | do | General use | 16, 17 |
| 464.65 | do | do | 16, 17 |
| 464.70 | do | do | 16, 17 |
| 466.50 | Mobile | Low power general use | 13, 16 |
| 466.55 | do | do | 13, 16 |
| 466.60 | do | do | 13, 16 |
| 466.65 | do | do | 13, 16 |
| 466.70 | do | do | 13, 16 |
| 466.75 | do | do | 13, 16 |
| 466.80 | do | do | 13, 16 |
| 466.85 | do | do | 13, 16 |
| 466.90 | do | do | 13, 16 |
| 466.95 | do | do | 13, 16 |

| Frequency or band | Class of station(s) | General reference | Limitations |
|---|---|---|---|
| *Mc* | | | |
| 467.00 | Mobile | Permanent use | 7, 9, 11, 16, 17 |
| 467.05 | do | do | 7, 9, 11, 16, 17 |
| 467.10 | do | do | 7, 9, 11, 16, 17 |
| 467.15 | do | do | 7, 9, 11, 16, 17 |
| 467.20 | do | do | 7, 9, 11, 16, 17 |
| 467.25 | do | Itinerant use | 7, 12, 16, 17 |
| 467.30 | do | do | 7, 12, 16, 17 |
| 467.35 | do | General use | 7, 16, 17 |
| 467.40 | do | do | 7, 16, 17 |
| 467.45 | do | do | 7, 16, 17 |
| 468.00 | do | Permanent use | 7, 10, 11 |
| 468.05 | do | do | 7, 10, 11 |
| 468.10 | do | do | 7, 10, 11 |
| 468.15 | do | do | 7, 10, 11 |
| 468.20 | do | do | 7, 10, 11 |
| 468.25 | do | do | 7, 10, 11 |
| 468.30 | do | do | 7, 10, 11 |
| 468.35 | do | do | 7, 10, 11 |
| 468.40 | do | do | 7, 10, 11 |
| 468.45 | do | do | 7, 10, 11 |
| 468.50 | do | do | 7, 10, 11 |
| 468.55 | do | do | 7, 10, 11 |
| 468.60 | do | do | 7, 10, 11 |
| 468.65 | do | do | 7, 10, 11 |
| 468.70 | do | do | 7, 10, 11 |
| 468.75 | do | do | 7, 10, 11 |
| 468.80 | do | do | 7, 10, 11 |
| 468.85 | do | do | 7, 10, 11 |
| 468.90 | do | do | 7, 10, 11 |
| 468.95 | do | do | 7, 10, 11 |
| 469.00 | do | do | 7, 10, 11 |
| 469.05 | do | do | 7, 10, 11 |
| 469.10 | do | do | 7, 10, 11 |
| 469.15 | do | do | 7, 10, 11 |
| 469.20 | do | do | 7, 10, 11 |
| 469.25 | do | do | 7, 10, 11 |
| 469.30 | do | do | 7, 10, 11 |
| 469.35 | do | do | 7, 10, 11 |
| 469.40 | do | do | 7, 10, 11 |
| 469.45 | do | do | 7, 10, 11 |
| 469.50 | do | do | 7, 10, 11 |
| 469.55 | do | do | 7, 10, 11 |
| 469.60 | do | do | 7, 10, 11 |
| 469.65 | do | do | 7, 10, 11 |
| 469.70 | do | do | 7, 10, 11 |
| 469.75 | do | do | 7, 10, 11 |
| 469.80 | do | do | 7, 10, 11 |
| 469.85 | do | do | 7, 10, 11 |
| 469.90 | do | do | 7, 10, 11 |
| 469.95 | do | do | 7, 10, 11 |
| 952-960 | Operational fixed | Microwave fixed | 1 |
| 1850-1990 | do | do | 1 |
| 2110-2200 | do | do | 1 |
| 2450-2500 | Base, mobile, fixed | 2450 Mc ISM | 1, 2 |
| 2500-2700 | Operational fixed | Microwave fixed | 1 |
| 6425-6575 | Base or mobile | Microwave mobile | 1 |
| 6575-6875 | Operational fixed | Microwave fixed | 1 |
| 10550-10700 | do | do | 1 |
| 11700-12200 | Base or mobile | Microwave mobile | 1 |
| 12200-12700 | Operational fixed | Microwave fixed | 1 |
| 13200-13225 | do | do | 1 |
| 18000-18800 | do | do | 1, 2 |
| 26000-30000 | do | do | 1 |

(b) Explanation of assignment limitations appearing in the frequency tabulation of this section:

(1) Limited to developmental operation only with the assigned frequency and particulars of operation specified in each authorization.

(2) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific or medical devices.

(3) Use of this frequency is subject to the condition that no harmful interfer-

ence will be caused to the reception of television channels 4 or 5. Assignments will be made only in accordance with the criteria set forth in § 11.8.

(4) This frequency will be assigned only for the specific purpose of transmitting hydrological or meteorological data. The use of this frequency is subject to the condition that harmful interference will not be caused to Federal Government stations, and further, that the hydrological or meteorological data being handled is made available to interested governmental agencies. Other rule provisions of this part notwithstanding, an operational fixed station operating on this frequency shall not engage in communications with any station in the mobile service unless written authorization to do so has been obtained from the Commission. Persons who desire to operate stations on this frequency should communicate with the Commission for instructions concerning the procedure to be followed in filing formal application.

(5) Use of this frequency is limited to stations located in the States of Pennsylvania and West Virginia only and is subject to no protection from interference due to the operation of industrial, scientific or medical devices on this frequency.

(6) This frequency is intended for use primarily by fixed relay stations.

(7) This frequency will not be assigned to base stations.

(8) Other rule provisions of this part notwithstanding, this frequency may be authorized for use with any type of emission which does not exceed an occupied bandwidth of 8 kilocycles, for intermittent transmission; further, authorizations may be issued to permit operation on this frequency by self-actuating or other electrical or mechanical means not under the direct control of any individual. All operations on this frequency are limited to a maximum plate power input of 30 watts to the final radio frequency stage.

(9) This frequency is available for assignment on a secondary basis to fixed relay or control stations which operate as integral parts of a radio circuit over which messages are sent to or received from a mobile station without interruption for manual relaying, provided that such operation causes no harmful interference to base or mobile stations, and further provided, that this frequency will not be assigned for such control or relay operation in any instance where its use will be in a radio circuit which involves more than two automatic retransmissions in each direction on mobile service frequencies.

(10) Operation on this frequency is limited to a maximum plate power input of 160 watts to the final radio frequency stage.

(11) This frequency will be assigned only to stations which are restricted in operation to a specified permanent area.

(12) This frequency will be assigned only to stations used in itinerant operations, which require that the station be transferred from time to time to various temporary communication areas.

(13) This frequency is limited to a maximum plate input power to the final radio frequency stage of 3 watts and each station authorized hereon will be classified and licensed as a mobile station. Any units of such a station, however, may be used to provide the operational functions of a base or fixed station, provided no harmful interference is caused to mobile service operations and further provided, that the separation between the control point and the center of the radiating portion of the antenna of any units so used shall not exceed 25 feet.

(14) This frequency may not be used aboard aircraft.

(15) This frequency is shared with the Taxicab Radio Service and is available for assignment in this service only to stations which are used exclusively in areas outside of Standard Metropolitan Areas of 50,000 or more population. All operations on this frequency are subject to the condition that no harmful interference is caused to the Taxicab Radio Service.

(16) This frequency is shared with the Citizens Radio Service for use in that service with a maximum plate input power to the final radio frequency stage of 5 watts.

(17) Operation on this frequency is limited to a maximum plate power input of 60 watts to the final radio frequency stage.

J. Add new index references, titles and texts for Subpart O—Manufacturers Radio Service.

## SUBPART O—MANUFACTURERS RADIO SERVICE

Sec.
11.726 Definition
11.727 Eligibility
11.728 Availability and use of service
11.729 Station limitations
11.730 Frequencies available

AUTHORITY: §§ 11.726 to 11.730 issued under sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303.

§ 11.726 *Definition.* For the purpose of this subpart, manufacturing activities are defined as the activities directly involved in the mechanical or chemical transformation of organic or inorganic substances into new products within establishments usually described as plants, factories, shipyards, or mills and which employ, in that process, power-driven machines and materials-handling equipment. Establishments engaged in assembling components of manufactured products in plants, factories, shipyards or mills are also engaged in manufacturing activities if the new product is neither a new structure nor other fixed improvement. Establishments primarily engaged in the wholesale or retail trade, or in service activities, even though they fabricate or assemble any or all of the products or commodities handled, shall not be considered to be engaged in manufacturing activities.

§ 11.727 *Eligibility.* (a) Persons directly engaged in manufacturing activities, as that term is defined in § 11.726, are eligible to hold authorizations to operate radio stations in the Manufacturers Radio Service.

(b) A subsidiary corporation proposing to furnish a non-profit radiocommunication service to its parent corporation or to another subsidiary of the same parent corporation is eligible in the Manufacturers Radio Service, if the parent corporation or the other subsidiary is engaged in a manufacturing activity as defined in § 11.726.

§ 11.728 *Availability and use of service.* (a) The initial application from a person claiming eligibility in the Manufacturers Radio Service must be accompanied by a statement in detail sufficient to indicate clearly such eligibility.

(b) Authorizations to operate stations in this service are available to persons establishing eligibility under the provisions of this subpart; however, except for transmissions relating to an immediate emergency involving the safety of life or property, such authorized stations may be used only for the transmission of communications incident to plant, security, production control or materials-handling, other than the retail distribution of the manufacturer's products.

§ 11.729 *Station limitations.* (a) Mobile relay stations will not be authorized in the Manufacturers Radio Service within the continental limits of the United States, except when such stations and all associated control and mobile stations are to be operated exclusively on frequencies above 450 Mc.

(b) No Base Station will be authorized in this service for operation at unspecified or temporary locations, or for operation at a location other than one within the boundaries of a plant, factory, shipyard, mill or other manufacturing area occupied and controlled by the applicant: *Provided, however,* That when it is shown that location within the boundaries of such manufacturing area is impracticable, the Commission may authorize a location immediately adjacent thereto.

(c) Authorizations for fixed stations in this service will be limited to those used for control stations, which operate as an integral part of a mobile relay system, and to those operating in the frequency range 27.235 through 27.275 Mc.

(d) No station in this service will be authorized to operate with a plate power imput to the final radio frequency stage in excess of 60 watts.

§ 11.730 *Frequencies available.* (a) The following tabulation indicates the frequencies available for assignment to stations in the Manufacturers Radio Service together with the class of station(s) to which they are normally assigned and the specific assignment limitations, which are developed in paragraph (b) of this section:

| Frequency | Class of station(s) | Limitations |
|---|---|---|
| *Mc* | | |
| 27.235 | Base, mobile or fixed | 2,3 |
| 27.245 | do | 2,3 |
| 27.255 | do | 2,3 |
| 27.265 | do | 2,3 |
| 27.275 | do | 2,3 |
| 153.05 | Base or mobile | 1 |
| 153.08 | do | 1 |
| 153.11 | do | 1 |
| 153.14 | do | 1 |
| 153.17 | do | 1 |
| 153.20 | do | 1 |
| 153.23 | do | 1 |
| 153.26 | do | 1 |
| 153.29 | do | 1 |
| 153.32 | do | 1 |
| 153.35 | do | 1 |
| 153.38 | do | 1 |
| 158.28 | do | 1 |
| 158.31 | do | 1 |
| 158.43 | do | 1 |
| 462.05 | do | |
| 462.10 | do | |
| 462.15 | do | |
| 462.20 | do | |
| 462.25 | do | |
| 462.30 | do | |
| 462.35 | do | |
| 462.40 | do | |
| 462.45 | do | |
| 462.50 | do | |
| 467.50 | Mobile | 4 |
| 467.55 | do | 4 |
| 467.60 | do | 4 |
| 467.65 | do | 4 |
| 467.70 | do | 4 |
| 467.75 | do | 4 |
| 467.80 | do | 4 |
| 467.85 | do | 4 |
| 467.90 | do | 4 |
| 467.95 | do | 4 |

(b) Explanation of assignment limitations appearing in the frequency tabulation of this section:

(1) This frequency is shared with the Petroleum Radio Service and the Forest Products Radio Service.

(2) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific or medical devices.

(3) Other rule provisions of this part notwithstanding, this frequency may be authorized for use with any type of emission which does not exceed an occupied bandwidth of 8 kilocycles, for intermittent transmissions; further, authorizations may be issued to permit operation on this frequency by self-actuating or other electrical or mechanical means not under the direct control of any individual. All operations on this frequency are limited to a maximum plate power input of 30 watts to the final radio frequency stage.

(4) This frequency will not be assigned to base stations.

K. Add new index references, titles and texts for Subpart P—Telephone Maintenance Radio Service.

SUBPART P—TELEPHONE MAINTENANCE RADIO SERVICE

Sec.

11.751 Eligibility.
11.752 Availability and use of service.
11.753 Station limitations.
11.754 Frequencies available.

AUTHORITY: §§ 11.751 to 11.754 issued under sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303.

§ 11.751 *Eligibility.* The following persons are eligible to hold authorizations in the Telephone Maintenance Radio Service:

(a) Communications common carriers primarily engaged in rendering a wire-line or wire-line and radio communications service to the public for hire.

(b) A subsidiary corporation proposing to furnish a non-profit radiocommunication service to its parent corporation or to another subsidiary of the same parent where the party to be served is engaged in the activity set forth above.

§ 11.752 *Availability and use of service.* (a) The initial application from a person claiming eligibility in this service must be accompanied by a statement in detail sufficient to indicate clearly such eligibility.

(b) Except for transmissions relating to an immediate emergency endangering life or property, stations in this service may be used only for the transmission of communications, incident to the technical or engineering aspects of construction, repair, maintenance or efficient operation of communications common carrier rights-of-way, plant facilities or customer stations.

(c) The facilities authorized in this service shall not be used for administrative or other non-technical business activities of the licensee, nor for the transmission of any common carrier or public correspondence communication.

§ 11.753 *Station limitations.* (a) Mobile relay stations will not be authorized in the Telephone Maintenance Radio Service within the continental limits of the United States, except when such stations and all associated control and mobile stations are to be operated exclusively on frequencies above 450 Mc.

(b) Authorizations for fixed stations in this service will be limited to those used for control or fixed relay links necessary for the operation of a remotely located base station and to those operating in the frequency range 27.235 through 27.275 Mc.

§ 11.754 *Frequencies available.* (a) The following tabulation indicates the frequencies available for assignment to stations in the Telephone Maintenance Radio Service together with the class of station(s) to which they are normally assigned and the specific assignment limitations, which are developed in paragraph (b) of this section:

| Frequency | Class of station(s) | Limitations |
|---|---|---|
| *Mc* | | |
| 27.235 | Base, mobile or fixed | 2,3 |
| 27.245 | do | 2,3 |
| 27.255 | do | 2,3 |
| 27.265 | do | 2,3 |
| 27.275 | do | 2,3 |
| 35.16 | Base or mobile | |
| 43.16 | Mobile | 4 |
| 151.985 | Base or mobile | |
| 158.34 | Mobile | 4 |
| 451.20 | Base or mobile | 1 |
| 451.35 | do | 1 |
| 451.40 | do | 1 |
| 451.45 | do | 1 |
| 451.50 | do | 1 |
| 456.30 | Mobile | 1,4 |
| 456.35 | do | 1,4 |
| 456.40 | do | 1,4 |
| 456.45 | do | 1,4 |
| 456.50 | do | 1,4 |

(b) Explanation of assignment limitations appearing in the frequency tabulation of this section:

(1) This frequency is available for assignment on a secondary basis to fixed relay or control stations which operate as integral parts of a radio circuit over which messages are sent to or received from a mobile station without interruption for manual relaying, provided that such operation causes no harmful interference to base or mobile stations, and further provided, that this frequency will not be assigned for such control or relay operation in any instance where its use will be in a radio circuit which involves more than two automatic retransmissions in each direction on mobile service frequencies.

(2) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific or medical devices.

(3) Other rule provisions of this part notwithstanding, this frequency may be authorized for use with any type of emission which does not exceed an occupied bandwidth of 8 kilocycles, for intermittent transmissions; further, authorizations may be issued to permit operation on this frequency by self-actuating or other electrical or mechanical means not under the direct control of any individual. All operations on this frequency are limited to a maximum plate power input of 30 watts to the final radio frequency stage.

(4) This frequency will not be assigned to base stations.

[F. R. Doc. 58-4852; Filed, June 27, 1958; 8:45 a. m.]

# TITLE 16—COMMERCIAL PRACTICES

## Chapter I—Federal Trade Commission

### Subchapter B—Trade Practice Conference Rules

[File No. 21-464]

### PART 34—NURSERY INDUSTRY

Due proceedings having been held under the trade practice conference procedure in pursuance of the Act of Congress approved September 26, 1914, as amended (Federal Trade Commission Act), and other provisions of law administered by the Commission:

*It is now ordered*, That the trade practice rules as hereinafter set forth, which have been approved by the Commission in this proceeding, be promulgated as of June 28, 1958.

Statement by the Commission. Amended trade practice rules for the Nursery Industry, as hereinafter set forth, are promulgated by the Federal Trade Commission under the trade practice conference procedure. Such rules constitute a revision and extension of the trade practice rules for the Nursery Industry promulgated by the Commission on June 27, 1956, and supersede the 1956 rules.

The industry for which these rules are established is composed of persons, firms, corporations, and organizations engaged in the sale, offering for sale, or distribution of all types of trees, small fruit plants, shrubs, vines, ornamentals, herbaceous annuals, biennials and peren-

nials, bulbs, corms, rhizomes, and tubers which are offered for sale or sold to the general public. Included are products propagated sexually or asexually and whether grown in a commercial nursery or collected from the wild state. Such products are customarily used for outdoor planting. Not included are florists' or greenhouse plants solely for inside culture or use and annual vegetable plants. Likewise, gladiolus bulbs and corms are excluded inasmuch as they are covered by trade practice rules promulgated January 17, 1952.

The rules are directed to the prevention and elimination of various unfair trade practices deemed to be violative of laws administered by the Commission. They are to be applied to such end and to the exclusion of any acts or practices which suppress competition or otherwise restrain trade.

Proceedings to amend and extend the 1956 trade practice rules for this industry were instituted pursuant to industry application. Two sessions of the industry trade practice conference were held, the first in Chicago, Illinois, on February 27, 1958, and the second in New York, New York, on March 10, 1958, at which proposals for amendment of the rules were fully discussed. After due consideration of such proposals, proposed amended rules for the industry were published by the Commission and made available to all industry members and other interested or affected parties upon public notice whereby they were afforded opportunity to present their views, including such pertinent information, suggestions, or amendments as they desired to offer, and to be heard in the premises. Pursuant to such notice, a public hearing was held in Washington, D. C., on June 16, 1958, and all matters there presented, or otherwise received in the proceeding, were duly considered by the Commission.

Following such hearing, and upon full consideration of the entire matter, final action was taken by the Commission whereby it approved the rules as hereinafter set forth.

The rules as approved become operative thirty (30) days after the date of promulgation.

*The rules.* These rules promulgated by the Commission are designed to foster and promote the maintenance of fair competitive conditions in the interest of protecting industry, trade, and the public. It is to this end, and to the exclusion of any act or practice which fixes or controls prices through combination or agreement, or which unreasonably restrains trade or suppresses competition, or otherwise unlawfully injures, destroys, or prevents competition, that the rules are to be applied.

Sec.

34.0 Definitions.
34.1 Deception (general).
34.2 Deception through use of names.
34.3 Substitution of products.
34.4 Size and grade designations.
34.5 Deception as to blooming, fruiting, or growing ability.
34.6 Misrepresenting products as conforming to standard, etc.
34.7 False claims of membership, deceptive use of seals, etc.
34.8 Plants collected from the wild state.
34.9 Misrepresentation as to character of business.
34.10 Deceptive guarantees.
34.11 Deceptive "salesmen wanted" advertisements.
34.12 Misrepresentation with respect to collection of accounts.
34.13 Deception as to origin or source of industry products.
34.14 Exclusive deals.
34.15 Tie-in sales—coercing purchase of one product as a prerequisite to the purchase of other products.
34.16 Deceptive pricing.
34.17 Enticing away employees of competitors.
34.18 Use of the word "free".
34.19 Use of lottery schemes.
34.20 Defamation of competitors or false disparagement of their products.
34.21 Prohibited forms of trade restraints (unlawful price fixing, etc.)
34.22 Prohibited discrimination.
34.23 Aiding or abetting use of unfair trade practices.


AUTHORITY: §§ 34.0 to 34.23 issued under sec. 6, 38 Stat. 721; 15 U. S. C. 46. Interpret or apply sec. 5, 38 Stat. 719, as amended; 15 U. S. C. 45.

§ 34.0 *Definitions*—(a) *Industry products.* As used in this part, the term "industry products" includes all types of trees, small fruit plants, shrubs, vines, ornamentals, herbaceous annuals, biennials and perennials, bulbs, corms, rhizomes, and tubers which are offered for sale or sold to the general public. Included are products propagated sexually or asexually and whether grown in a commercial nursery or collected from the wild state. Such products are customarily used for outdoor planting. Not included are florists' or greenhouse plants solely for inside culture or use and annual vegetable plants. Likewise, gladiolus bulbs and corms are excluded inasmuch as they are covered by trade practice rules promulgated January 17, 1952.

(b) *Industry members.* Any person, firm, corporation, or organization engaged in the sale, offering for sale, or distribution in commerce of industry products, as defined above.

(c) *Lining-out stock.* Includes all plant material coming from propagating houses, beds, or frames, and young material such as seedlings rooted or unrooted cuttings, grafts or layers, of suitable size to transplant either in the nursery row or in containers for "growing on."

(d) *Nursery-grown stock.* Plants propagated and grown under cultivation, or plants transplanted from the wild and grown under cultivation for at least one full growing season.

§ 34.1 *Deception (general).* (a) It is an unfair trade practice to sell, offer for sale, or distribute industry products by any method, or under any circumstance or condition, which has the capacity and tendency or effect of deceiving purchasers or prospective purchasers as to quantity, size, grade, kind, species, age, maturity, condition, vigor, hardiness, number of times transplanted, growth ability, growth characteristics, rate of growth or time required before flowering or fruiting, price, origin or place where grown, or in any other material respect.

(b) The inhibitions of this section shall apply to every type of advertisement or method of representation, whether in newspaper, periodical, sales catalog, circular, by tag, label or insignia, by radio or television, by sales representatives, or otherwise.

(c) Among practices inhibited by the foregoing are direct or indirect representations:

(1) That plants have been propagated by grafting or bud selection methods, when such is not the fact.

(2) That industry products are healthy, will grow anywhere without the use of fertilizer, or will survive and produce without special care, when such is not the fact.

(3) That plants will bloom the year round, or will bear an extraordinary number of blooms of unusual size or quality, when such is not the fact.

(4) That an industry product is a new variety, when in fact it is a standard variety to which the industry member has given a new name.

(5) That an industry product cannot be purchased through usual retail outlets, or that there are limited stocks available, when such is not the fact.

(6) That industry products offered for sale will be delivered in time for the next (or any specified) seasonal planting when the industry member is aware of factors which make such delivery improbable.

(7) That the appearance of an industry product as to size, color, contour, foliage, bloom, fruit or other physical characteristic is normal or usual when the appearance so represented is in fact abnormal or unusual.

(8) That the root system of any plant is larger in depth or diameter than that which actually exists, whether accomplished by excessive packaging material, or excessive balling, or other deceptive or misleading practice.

(9) That bulblets are bulbs.

(10) That an industry product is a rare or unusual item when such is not the fact. [Rule 1]

§ 34.2 *Deception through use of names.* (a) In the sale, offering for sale, or distribution of an industry product, it is an unfair trade practice for any industry member to use a name for such product which has the capacity and tendency or effect of deceiving purchasers or prospective purchasers as to its true identity.

(b) Subject to the foregoing:

(1) When an industry product has a generally recognized and well-established common name, it is proper to use such name as a designation therefor, either alone or in conjunction with the correct botanical name of the product.

(2) When an industry product has a generally recognized and well-established common name, it is an unfair trade practice for an industry member to adopt and use a new name for the product unless such new name is immediately accompanied by the generally recognized and well-established common name, or by the correct botanical name, or by a description of the nature and properties of the product which is of sufficient detail to prevent confusion and

deception of purchasers or prospective purchasers as to the true identity of the product.

(3) When an industry product does not have a generally recognized and well-established common name, and a name other than the correct botanical name of the product is applied thereto, such other name shall be immediately accompanied by either the correct botanical name of the product, or a description of the nature and properties of the product which is of sufficient detail as to prevent confusion and deception of purchasers and prospective purchasers as to the true identity of the product.

NOTE: *Industry recommendation.* The industry recommends that in administering this rule the Commission give consideration to the use of plant names listed in horticultural works such as Hortus Second, 1941, L. H. Bailey; Manual of Cultivated Plants, Rev. Ed. 1949, L. H. Bailey; Standard Cyclopedia of Horticulture, 2d Ed. 1925 (with reissues), L. H. Bailey; Check List of Native and Naturalized Trees of the United States, U. S. D. A. Agricultural Handbook 41, 1953, E. L. Little; Manual of Cultivated Trees and Shrubs Hardy in North America, 2d Ed. 1940, A. Rehder; Native Woody Plants of the United States, U. S. D. A. Misc. Publication 303, 1938, W. R. Van Dersal; Standardized Plant Names, 2d Ed. American Joint Committee on Horticultural Nomenclature, 1942; and to plant-name listings of well-recognized, nonprofit horticultural societies and organizations, such as the American Rose Society.

[Rule 2]

§ 34.3 *Substitution of products.* With respect to industry products offered for sale by an industry member, it is an unfair trade practice for any member of the industry:

(a) To ship or deliver industry products which do not conform to representations made prior to securing the order or to specifications upon which the sale is consummated, without advising the purchaser of the substitution and obtaining his consent thereto prior to making shipment or delivery, where such practice has the capacity and tendency or effect of misleading or deceiving purchasers or prospective purchasers; or

(b) To falsely represent the reason for making a substitution: *Provided, however,* That nothing in this section is intended to inhibit the shipment of products different from those ordered, prior to obtaining the purchaser's consent to such substitution, when the order is received by the industry member near the close of the planting season for the products ordered and the substitution involved relates but to a product or products the total price of which is comparatively small, and when:

(1) At the commencement of the planting season for the products ordered the industry member had a supply of such products sufficient to meet normal and reasonably expected orders therefor, and such supply has been exhausted; and

(2) The products substituted are of similar variety and of equal or greater value to those ordered by the purchaser and no additional charge is made therefor; and

(3) Notice of the substitution, with adequate identification of the substituted item or items, and with commitment of the industry member to refund any purchase price received for the substituted products if such products are not acceptable to the purchaser and to compensate the purchaser for any expense involved in the return of the substituted products if refund is conditioned on the return thereof, is given the purchaser at the time of his receipt of such products;

*And provided further,* That nothing in this section is to be construed as sanctioning the dissemination of an advertisement of an industry product or products or the personal solicitation of orders therefor unless at the time of such dissemination or solicitation the industry member has a supply of such product or products sufficient to meet normal and reasonably expected orders therefor. [Rule 3]

§ 34.4 *Size and grade designations.* (a) In the sale, offering for sale, or distribution of industry products, it is an unfair trade practice for an industry member to use any term, designation, number, letter, mark or symbol, as a size or grade designation for any industry product in a manner or under any circumstance having the capacity and tendency or effect of deceiving purchasers or prospective purchasers with respect to the actual size or grade of such products.

(b) Under this section industry members offering lining-out stock for sale shall specify conspicously and accurately the size and age of such stock when failure to do so has the capacity and tendency or effect of deceiving purchasers or prospective purchasers.

(c) Nothing in this section is to be construed as inhibiting the designation of the size or grade of an industry product by use of a size or grade designation for which a standard has been established which is generally recognized in the industry when the identity of such standard is conjunctively disclosed, the product qualifies for the designation under such standard, and no deception of purchasers or prospective purchasers results in the use of such designation.

NOTE: It is the consensus of the industry that the grade and size standard set forth in American Standard For Nursery Stock, as revised April 15, 1956, and approved by American Standards Association, Inc., is generally recognized in the industry, and that use of the size and grade designations therein set forth, in accordance with the requirements of the standard for the designations, in the marketing of industry products to which such standard relates, will prevent deception and confusion of purchasers and prospective purchasers of such products.

[Rule 4]

§ 34.5 *Deception as to blooming, fruiting, or growing ability.* In the sale, offering for sale, or distribtuion of industry products, it is an unfair trade practice for any industry member to deceive purchasers or prospective purchasers as to the ability of such products:

(a) To bloom, flower, or fruit within a specified period of time; or

(b) To produce crops within a specified period of time, or to give multiple crops each year, or to produce crops in unfavorable climatic regions; or

(c) To bear fruit through self-pollinization; or

(d) To grow, flourish, and survive irrespective of the climatic conditions, the care exercised in or after planting, or the soil characteristics of the locality in which they are to be planted.

NOTE 1: Under this section, when flower bulbs are of such immaturity as not reasonably to be expected to bloom and flower the first season of their planting, such fact shall be clearly and conspicuously disclosed in all advertisements and sales promotional literature relating to such products: *Provided, however,* That such disclosure need not be made when sales are confined to nurseries and commercial growers for their use as planting stock.

NOTE 2: Under this section, in order to avoid deception of purchasers and prospective purchasers thereof, when rose bushes have been used in a greenhouse for the commercial production of cut flowers, they shall be tagged or labeled so as to clearly, adequately and conspicuously disclose such fact, and such tags and labels shall be so attached thereto as to remain thereon until consummation of consumer sale. A similar disclosure shall be made in all advertising and sales promotional literature relating to such produtcs. And when, by reason of such previous greenhouse use or their condition at the time of removal therefrom or their handling during or subsequent thereto, there is probability that such rose bushes will not satisfactorily thrive and produce flowers when replanted outdoors, or will satisfactorily thrive and produce flowers outdoors only if given special treatment and attention during and after their replanting, such fact shall also be clearly, conspicuously and nondeceptively disclosed in close conjunction with, and in the same manner as, the aforesaid required disclosure that such products have been used in a greenhouse for the commercial production of cut flowers.

[Rule 5]

§ 34.6 *Misrepresenting products as conforming to standard, etc.* In connection with the sale or offering for sale of industry products, it is an unfair trade practice to represent, through advertising or otherwise:

(a) That any product of the industry conforms to the requirements of any standard recognized in or applicable to the industry, when such is not the fact; or

(b) That an industry product conforms to the requirements of any standard when (1) no such standard exists, or (2) no disclosure of the identity of the standard is made, or (3) when the product does not in fact conform to the requirements of the identified standard.

NOTE: Among the types of misrepresentation inhibited by this section is the practice of claiming that an industry product has been approved by a governmental authority or private agency, when in fact the product has not been so approved.

[Rule 6]

§ 34.7 *False claims of membership, deceptive use of seals, etc.* In the sale, offering for sale, or distribution of industry products, it is an unfair trade practice for any industry member:

(a) To represent or claim falsely that he is a member of any association or other organization; or

(b) To use the seal or other insignia of any association or organization without the authorization of such association or organization; or

(c) To use any seal or insignia which is of such form or design, or contains such wording as to simulate the seals or insignia which are issued by an association or organization for use by its members—

when such representation, claim, or use has the capacity and tendency or effect of misleading or deceiving purchasers or prospective purchasers in any material respect. [Rule 7]

§ 34.8 *Plants collected from the wild state.* It is an unfair trade practice to sell, offer for sale, or distribute industry products collected from the wild state without disclosing that they were collected from the wild state: *Provided, however,* That if collected plants are grown in the nursery row for at least one growing season before being marketed, such disclosure is not required. [Rule 8]

§ 34.9 *Misrepresentation as to character of business.* (a) In the sale, offering for sale, or distribution of industry products, it is an unfair trade practice for any industry member to represent or imply that he is a grower or propagator of such products or any portion thereof, or that he has any other experience or qualification either relating to the growing or propagation of such products or which enables him to be of assistance to purchasers or prospective purchasers in the selection by them of the kinds or types of products or the placement thereof when such is not the fact, or in any other manner to misrepresent the character, nature, or extent of his business.

NOTE: Among practices subject to the inhibitions of this section are representations by an industry member to the effect that he is a landscape achitect when his training, experience, and knowledge do not qualify him for such representation.

(b) It is also an unfair trade practice for an industry member to use the word "guild", "club", "association", "council", "society", "foundation", or any other word of similar import or meaning, as part of a trade name, or otherwise, in such a manner or under such circumstances as to indicate or imply that his business is other than a commercial enterprise operated for profit, unless such be true in fact, or so as to deceive purchasers or prospective purchasers in any other material respect. [Rule 9]

§ 34.10 *Deceptive guarantees.* (a) It is an unfair trade practice to represent, in advertising or otherwise, that a nursery product is "guaranteed" unless the nature and extent of such guarantee is conjunctively disclosed and without deceptively minimizing the terms and conditions relating to the obligations of the guarantor.

(b) It is also an unfair trade practice to use or cause to be used any guarantee in which the obligations of the guarantor are impracticable of fulfillment, or in respect to which the guarantor fails or refuses to observe his liabilities thereunder. [Rule 10]

§ 34.11 *Deceptive "salesmen wanted" advertisements.* In connection with the promotion or the sale of industry products, it is an unfair trade practice for an industry member to use or cause to be used any advertisement which, directly or by implication, is false, misleading, or deceptive concerning:

(a) The salary, commission, income, earnings, or other form of remuneration which agents, canvassers, solicitors, sales representatives, or sales-contact personnel may expect to receive; or

(b) The opportunities to become a local manager, district supervisor, field representative, or to start in an established nursery or landscape business; or

(c) Any form of inducement which leads the prospective salesman to believe he will be employed as anything other than a commission agent. [Rule 11]

§ 34.12 *Misrepresentation with respect to collection of accounts.* It is an unfair trade practice for an industry member to use collection letters, notices, forms, or other communications purporting to emanate from his "legal department," when in fact he does not maintain a legal department for the collection of accounts; or to use the names of fictitious or nonexisting collection agencies, or to represent that collection offices set up by him are independent, bona fide collection agencies, or to use simulated legal forms or other intimidating, threatening or deceptive methods to induce payment. [Rule 12]

§ 34.13 *Deception as to origin or source of industry products.* (a) It is an unfair trade practice to sell, offer for sale, or advertise an industry product under any representation which has the capacity and tendency or effect of deceiving purchasers or prospective purchasers as to the origin or source of such product (e. g., by use of the term "Holland" to describe bulbs which were grown in the U. S. A.): *Provided, however,* That when a plant has an accepted common name which incorporates a geographical term and such term has lost its geographical significance as so used, the mere use of such common name does not constitute a misrepresentation as to source or origin (e. g., "Colorado Blue Spruce," "Arizona Cypress," "Black Hills Spruce," "California Privet," "Japanese Barberry," etc.).

(b) It is also an unfair trade practice to advertise, sell, or offer for sale an industry product of foreign origin without adequate and nondeceptive disclosure of the name of the foreign country from which it came, where the failure to make such disclosure has the capacity and tendency or effect of deceiving purchasers or prospective purchasers. [Rule 13]

§ 34.14 *Exclusive deals.* It is an unfair trade practice for any member of the industry engaged in commerce,[1] in the course of such commerce, to make a sale or contract for sale of any industry product, for use, consumption, or resale within any place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the purchaser thereof shall not use or deal in the goods of a competitor or competitors of the seller, where the effect of such sale or contract for sale, or such condition, agreement, or understanding, may be substantially to lessen competition or tend to create a monopoly in any line of commerce. [Rule 14]

§ 34.15 *Tie-in sales; coercing purchase of one product as a prerequisite to the purchase of other products.* The practice of coercing the purchase of one or more products as a prerequisite to the purchase of one or more other products, where the effect may be substantially to lessen competition or tend to create a monopoly or unreasonably to restrain trade, is an unfair trade practice. [Rule 15]

§ 34.16 *Deceptive pricing.* (a) It is an unfair trade practice to represent, in advertising or otherwise, that the price of an industry product has been reduced from a price which, in fact, is a fictitious price; or that the price is a wholesale, introductory, or special price, when it is in fact the regular selling price of the product; or that the regular price of a product is higher than is actually the fact; or otherwise to represent falsely or deceptively the past or current price of an industry product.

(b) It is also an unfair trade practice to make a comparison, in advertising or otherwise, between the price of an industry product offered for sale and the price of a comparable industry product obtainable from competitive sources, unless the comparison is made in the same grade and size of product and in the same general market area, or unless the differences in grade, size, and market area are clearly stated. [Rule 16]

§ 34.17 *Enticing away employees of competitors.* It is an unfair trade practice for any member of the industry wil-

[1] As used in this section, the word "commerce" means "trade or commerce among the several States and with foreign nations, or between the District of Columbia or any Territory of the United States and any State, Territory, or foreign nation, or between any insular possessions or other places under the jurisdiction of the United States, or between any such possession or place and any State or Territory of the United States or the District of Columbia or any foreign nation, or within the District of Columbia or any Territory or any insular possession or other place under the jurisdiction of the United States."

fully to entice away employees or sales-contact personnel of competitors with the intent and effect of thereby unduly hampering or injuring competitors in their business and destroying or substantially lessening competition; provided, that nothing in this section shall be construed as prohibiting such persons from seeking more favorable employment, or as prohibiting employers from hiring or offering employment to employees of a competitor in good faith and not for the purpose of inflicting injury on such competitor. [Rule 17]

§ 34.18 *Use of the word "free."* In connection with the sale, offering for sale, or distribution of industry products, it is an unfair trade practice to use the word "free," or any other word or words of similar import, in advertisements or in other offers to the public, as descriptive of an article of merchandise, or service, which is not an unconditional gift, under the following circumstances:

(a) When all the conditions, obligations, or other prerequisites to the receipt and retention of the "free" article of merchandise or service offered are not clearly and conspicuously set forth at the outset so as to leave no reasonable probability that the terms of the offer will be misunderstood; and, regardless of such disclosure:

(b) When, with respect to any article of merchandise required to be purchased in order to obtain the "free" article or service, the offerer (1) increases the ordinary and usual price of such article of merchandise, or (2) reduces its quality, or (3) reduces the quantity or size thereof.

NOTE: The disclosure required by paragraph (a) of this section shall appear in close conjunction with the word "free" (or other word or words of similar import) wherever such word first appears in each advertisement or offer. A disclosure in the form of a footnote, to which reference is made by use of an asterisk or other symbol placed next to the word "free," will not be regarded as compliance.

[Rule 18]

§ 34.19 *Use of lottery schemes.* The offering or giving of prizes, premiums, or gifts in connection with the sale or distribution of industry products, or as an inducement thereto, by any method which involves a lottery or scheme of chance, and the sale or distribution of industry products by any method or plan which involves a lottery or scheme of chance, are unfair trade practices. [Rule 19]

§ 34.20 *Defamation of competitors or false disparagement of their products.* It is an unfair trade practice to defame competitors by falsely imputing to them dishonorable conduct, inability to perform contracts, questionable credit standing, or by other false representations, or the false disparagement of competitors' products in any respect, or of their business methods, selling prices, values, credit terms, policies, or services. [Rule 20]

§ 34.21 *Prohibited forms of trade restraints (unlawful price fixing, etc.)* [2] It is an unfair trade practice for any member of the industry, either directly or indirectly, to engage in any planned common course of action, or to enter into or take part in any understanding, agreement, combination, or conspiracy, with one or more members of the industry, or with any other person or persons, to fix or maintain the price of any goods or otherwise unlawfully to restrain trade; or to use any form of threat, intimidation, or coercion to induce any member of the industry or other person or persons to engage in any such planned common course of action, or to become a party to any such understanding, agreement, combination, or conspiracy. [Rule 21]

§ 34.22 *Prohibited discrimination* [1]—(a) *Prohibited discriminatory prices, rebates, refunds, discounts, credits, etc., which effect unlawful price discrimination.* It is an unfair trade practice for any member of the industry engaged in commerce, in the course of such commerce, to grant or allow, secretly or openly, directly or indirectly, any rebate, refund, discount, credit, or other form of price differential, where such rebate, refund, discount, credit, or other form of price differential, effects a discrimination in price between different purchasers of goods of like grade and quality, where either or any of the purchases involved therein are in commerce, and where the effect thereof may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them: *Provided, however:*

(1) That the goods involved in any such transaction are sold for use, consumption, or resale within any place under the jurisdiction of the United States, and are not purchased by schools, colleges, universities, public libraries, churches, hospitals, and charitable institutions not operated for profit, as supplies for their own use.

(2) That nothing contained in this paragraph shall prevent differentials which make only due allowance for differences in the cost of manufacture, sale, or delivery resulting from the differing methods or quantities in which such commodities are to such purchasers sold or delivered.

(3) That nothing contained in this section shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade.

(4) That nothing contained in this paragraph shall prevent price changes from time to time where made in response to changing conditions affecting the market for or the marketability of the goods concerned, such as but not limited to obsolescence of seasonal goods, distress sales under court process, or sales in good faith in discontinuance of business in the goods concerned.

(5) That nothing contained in this section shall prevent the meeting in good faith of an equally low price of a competitor, or the services or facilities furnished by a competitor. (See paragraphs (c) and (d) of this section.)

(b) *Prohibited brokerage and commissions.* It is an unfair trade practice for any member of the industry engaged in commerce, in the course of such commerce, to pay or grant, or to receive or accept, anything of value as a commission, brokerage, or other compensation, or any allowance or discount in lieu thereof, except for services rendered in connection with the sale or purchase of goods, wares, or merchandise, either to the other party to such transaction or to an agent, representative, or other intermediary therein where such intermediary is acting in fact for or in behalf, or is subject to the direct or indirect control, of any party to such transaction other than the person by whom such compensation is so granted or paid.

(c) *Prohibited advertising or promotional allowances, etc.* It is an unfair trade practice for any member of the industry engaged in commerce to pay or contract for the payment of advertising or promotional allowances or any other thing of value to or for the benefit of a customer of such member in the course of such commerce as compensation or in consideration for any services or facilities furnished by or through such customer in connection with the processing, handling, sale, or offering for sale of any products or commodities manufactured, sold, or offered for sale by such member, unless such payment or consideration is available on proportionally equal terms to all other customers competing in the distribution of such products or commodities.

(d) *Prohibited discriminatory services or facilities.* It is an unfair trade practice for any member of the industry engaged in commerce to discriminate in favor of one purchaser against another purchaser or purchasers of a commodity

[1] See footnote on p. 4806.

[2] The inhibitions of this section are subject to Public Law 542, approved July 14, 1952, 66 Stat. 632 (the McGuire Act) which provides that with respect to a commodity which bears, or the label or container of which bears, the trade-mark, brand, or name of the producer or distributor of such commodity and which is in free and open competition with commodities of the same general class produced or distributed by others, a seller of such a commodity may enter into a contract or agreement with a buyer thereof which establishes a minimum or stipulated price at which such commodity may be resold by such buyer when such contract or agreement is lawful as applied to intrastate transactions under the laws of the State, Territory, or territorial jurisdiction in which the resale is to be made or to which the commodity is to be transported for such resale, and when such contract or agreement is not between manufacturers, or between wholesalers, or between brokers, or between factors, or between retailers, or between persons, firms, or corporations in competition with each other.

bought for resale, with or without processing, by contracting to furnish or furnishing, or by contributing to the furnishing of, any services or facilities connected with the processing, handling, sale, or offering for sale of such commodity so purchased upon terms not accorded to all competing purchasers on proportionally equal terms.

(e) *Inducing or receiving an illegal discrimination in price.* It is an unfair trade practice for any member of the industry engaged in commerce in the course of such commerce, knowingly to induce or receive a discrimination in price which is prohibited by the foregoing provisions of this section.

(f) *Purchases by U. S. Government; applicability of Robinson-Patman Anti-discrimination Act to same.* In an opinion submitted to the Secretary of War under date of December 28, 1936, the U. S. Attorney General advised that the Robinson-Patman Antidiscrimination Act "is not applicable to Government contracts for supplies." (38 Opinions, Attorney General 539.) [Rule 22]

§ 34.23 *Aiding or abetting use of unfair trade practices.* It is an unfair trade practice for any person to aid, abet, coerce, or induce another, directly or indirectly, to use or promote the use of any unfair trade practice specified in this part. [Rule 23]

Issued: June 25, 1958.

Promulgated by the Federal Trade Commission June 28, 1958.

[SEAL] ROBERT M. PARRISH, *Secretary.*

[F. R. Doc. 58-4935; Filed, June 27, 1958; 8:49 a. m.]

# TITLE 15—COMMERCE AND FOREIGN TRADE

## Chapter III—Bureau of Foreign Commerce, Department of Commerce

### Subchapter B—Export Regulations

[9th Gen. Rev. of Export Regs., Amdt. P. L. 1 [1]]

### PART 399—POSITIVE LIST OF COMMODITIES AND RELATED MATTERS

#### MISCELLANEOUS AMENDMENTS

Section 399.1 *Appendix A—Positive List of Commodities* is amended in the following particulars:

1. The following entries set forth below are substituted for entries presently on the Positive List. Where the Positive List contains more than one entry under a Schedule B number, the entry to be superseded is identified by a numerical reference in parentheses following the commodity description in the revised entry:

| Dept. of Commerce Schedule B No. | Commodity | Unit | Processing code and related commodity group | GLV dollar value limits | Validated license required | Commodity lists |
|---|---|---|---|---|---|---|
| | Carbon or graphite products (natural and artificial): | | | | | |
| 54809 | Graphite greases and lubricants, petroleum base (formerly 548098) (2).[17] | Lb. | PETR 1 | 25 | RO | A |
| 64010 | Copper ores, concentrates, matte, and other unrefined copper (copper content) (formerly 640100).[16] | Content lb. | NONF | 500 | RO | A C |
| 65455 | Nickel ore, concentrates, and matte (formerly 654501).[1] | Lb. | NONF | 500 | RO | A |
| 65460 | Nickel metal in ingots, bars, rods, and other crude forms, and scrap, except spent nickel catalyst (see § 399.2, Interpretations 10 and 12) (formerly 654502) (1).[1 14] | Lb. | NONF | 100 | RO | A C |
| 65460 | Nickel alloy metal scrap. (Specify percentage of each alloying element, or the recognized standard commercial brand or trade name.) (See § 399.2, Interpretations 10 and 12.) (Formerly 654502.) (2).[1 12] | Lb. | NONF | 100 | RO | A C |
| 65460 | Nickel alloy metals in ingots, bars, rods, and other crude forms. (Report nickel-silver in 64400-64490.) (Formerly 654502.) (3).[1 12] | Lb. | NONF | 100 | RO | A C |
| 65465 | Nickel and nickel alloy metal sheets, plates, and strip. (Report nickel-silver in 64400-64490.) (Formerly 654504.)[13] | Lb. | NONF 16 | 100 | RO | A |
| 65470 | Nickel-chrome electric resistance wire, except insulated. (Report insulated wire in 70972-70995.) (Formerly 654508.)[13] | Lb. | NONF | 100 | RO | A |
| 65475 | Nickel catalysts (formerly 619930).[13] | Lb. | NONF 12 | 100 | RO | |
| 65480 | Nickel and nickel alloys in semifabricated forms, n. e. c. (Specify by name and nickel content.) (Report cupro-nickel wire in 64571.) (Formerly 654519.)[13] | Lb. | NONF 16 | 100 | RO | A C |
| 66429 | Nickel-bearing cobalt scrap metal (include alloy steel scrap containing 5 percent or more cobalt by weight). (Specify percentage of each alloying element, or the recognized standard commercial brand or trade name.) (See § 399.2, Interpretations 10 and 12.) (Formerly 664526.) (3).[12] | Lb. | MINL 5 | None | RO | A |
| 66429 | Other cobalt-bearing scrap metal (include alloy steel scrap containing 5 percent or more cobalt by weight). (See § 399.2, Interpretations 10 and 12.) (Formerly 664526.) (4).[12] | Lb. | MINL 5 | None | RO | A |
| 66449 | Molybdenum ores and concentrates (molybdenum content) (formerly 664550).[18] | Content lb. | MINL 8 | 500 | RO | A E |
| | Welding sets, n. e. c., and parts: | | | | | |
| 70106 | 3-phase resistance welding sets (formerly 701032).[5] | No. | ELME 4 | None | R | |
| 70108 | Parts specially fabricated for 3-phase type resistance welding sets (formerly 709998).[5] | ---------- | ELME 4 | 100 | R | |
| | Electronic equipment, n. e. c., and parts: | | | | | |
| | Electron tubes and parts: | | | | | |
| 70840 | Electron tubes, n. e. c., except rectifier bulbs for automotive battery chargers. (Specify type numbers and quantity of each type.) (Formerly 707830.) (4).[12] | No. | RARA 51 | 50 | RO | A |
| | Electrical apparatus, n. e. c., and parts, n. e. c.: | | | | | |
| 70999 | Parts, n. e. c., specially fabricated for belt-type electrostatic generators (Van de Graaff machines) (formerly 709998). (2)[4] | ---------- | ELME 1 | 500 | RO | A C |
| | Construction and maintenance equipment, n. e. c., and specially fabricated parts and accessories, n. e. c.: | | | | | |
| 72245 | Parts and accessories, n. e. c., specially fabricated for off-the-road haulers (trucks), having front and rear axle drive. (1)[18 21] | ---------- | CONS 1 | 500 | RO | E |
| 72245 | Parts and accessories, n. e. c., specially fabricated for other off-the-road haulers (trucks, wagons and trailers) and chassis therefor included on the Positive List under Schedule B No. 72227. (Specify rated axle capacity of haulers for which parts are intended.) (Formerly 722045.) (1)[18 21] | ---------- | CONS 1 | 500 | R | E |
| | Separators and collectors, industrial process type, n. e. c., and specially fabricated accessories and parts, n. e. c.: | | | | | |
| 77388 | Drum filters, vapor-tight, and specially fabricated parts, n. e. c. (formerly 775049). (6)[15] | ---------- | GIEQ | 500 | RO | A |
| 91972 | Nuclear radiation detection and measuring instruments, n. e. c., except student-type and metal-leaf-type electroscopes; and specially fabricated parts and accessories, n. e. c. (Report electron tubes in 70824-70840; and handling equipment in 91980.) (Formerly 707850, 709995, and 919080.) (1, 2 and 3)[1 17] | ---------- | SATE 2 | 100 | RO | A C |

[1] This amendment was published in Current Export Bulletin 801, dated June 5, 1958.

[1] The GLV dollar-value limit is increased.
[4] The symbol "A" is deleted in the column headed "Commodity Lists," indicating that the commodity is no longer subject to the IC/DV procedure (see § 373.2).
[12] The symbol "G" is deleted in the column headed "Commodity Lists," indicating that the commodity may be exported to Group O destinations under General License GLV within the $500 value limit provisions (see § 371.10 (d)).
[14] The destination control is changed from R to RO, effective June 12, 1958.
[15] The commodity description is revised without substantive change.
[17] The unit of quantity is changed.
[18] The commodity coverage is decreased.
[21] Two entries are substituted for an entry presently on the Positive List under this Schedule B number.

2. With respect to entries on the Positive List classified under the following Schedule B numbers, the symbol "B" is deleted in the column head "Commodity Lists":

| | | | |
|---|---|---|---|
| 54091 | 64120 | 66510 | 70999 |
| 54730 | 64130 | 66520 | 77588 |
| 54740 | 64400 | 66530 | 91495 |
| 54780 | 65460 | 66540 | 91920 |
| 54809 | 66407 | 70840 | 91966 |
| 57227 | 66409 | (third | 91972 |
| 59645 | 66411 | entry | 91976 |
| 59900 | 66429 | only) | 91980 |
| 61995 | 66467 | 70856 | |
| 62290 | 66475 | 70879 | |

This amendment shall become effective as of June 5, 1958, unless otherwise indicated in the footnotes.

Shipments of any commodities removed from general license to Country Group O destinations as a result of changes set forth in Part 1 of this amendment, which were on dock for lading, on lighter, laden aboard an exporting carrier, or in transit to a port of exit pursuant to actual orders for export prior to June 12, 1958, may be exported under the previous general license provisions up to and including July 5, 1958. Any such shipment not laden aboard the exporting carrier on or before July 5, 1958, requires a validated license for export.

(Sec. 3, 63 Stat. 7, as amended; 50 U. S. C. App. 2023. E. O. 9630, 10 F. R. 12245, 3 CFR, 1945 Supp., E. O. 9919, 13 F. R. 59, 3 CFR, 1948 Supp.)

LORING K. MACY,
*Director,*
*Bureau of Foreign Commerce.*

[F. R. Doc. 58-4906; Filed, June 27, 1958; 8:45 a. m.]

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[9th Gen. Rev. of Export Regs., Amdt. P. L. 2[1]]

## PART 399—POSITIVE LIST OF COMMODITIES AND RELATED MATTERS

### MISCELLANEOUS AMENDMENTS

Section 399.1 *Appendix A—Positive List of Commodities* is amended in the following particulars:

1. The following commodities are added to the Positive List:

| Dept. of Commerce Schedule B No. | Commodity | Unit | Processing code and related commodity group | GLV dollar value limits | Validated license required | Commodity lists |
|---|---|---|---|---|---|---|
| 72205 | Motor scrapers, dig-carry-haul type, front and rear driver, over 10 cubic yards struck capacity (formerly 720312). | No. | CONS 1 | None | RO | ---------- |
| 72210 | Motor graders, self-propelled, front and rear drive, 100 brake horsepower and over (formerly 720315).[1] | No. | CONS 1 | None | RO | A |
| | Construction and maintenance equipment, n. e. c., and specially fabricated parts and accessories, n. e. c.: | | | | | |
| 72245 | Logging equipment, wheel-type, front and rear driver, 100 brake horsepower and over, and specially fabricated parts and accessories, n. e. c. (formerly 720345).[1] | ---------- | CONS 1 | 500 | RO | A |
| 72245 | Parts and accessories, n. e. c., specially fabricated for motor graders and scrapers included on the Positive List under Schedule B Nos. 72210 and 72205 respectively (formerly 720345).[1] | ---------- | CONS 1 | 500 | RO | A |
| | Materials handling equipment and parts: | | | | | |
| 72510 | Internal-combustion engine powered industrial trucks or tractors, front and rear drive, 70 to 100 brake horsepower. (Specify brake horsepower) (formerly 725005). | No. | CONS 1 | None | R | ---------- |
| 72540 | Parts, accessories, and attachments, n. e. c., specially fabricated for industrial trucks and wheel-type tractors included on the Positive List under Schedule B No. 72511, for which validated license is required to R country destinations only (formerly 725050). | ---------- | CONS 1 | 500 | R | ---------- |

[1] On and after July 28, 1958 an import certificate will be required in support of a license application covering exports of these commodities to the countries specified in § 373.2.

This part of the amendment shall become effective as of June 19, 1958, except as otherwise indicated in the footnote.

[1] This amendment was published in Current Export Bulletin 802, dated June 12, 1958.

2. The following entries set forth below are substituted for entries presently on the Positive List. Where the Positive List contains more than one entry under a Schedule B number, the entry to be superseded is identified by a numerical reference in parentheses following the commodity description in the revised entry:

| Dept. of Commerce Schedule B No. | Commodity | Unit | Processing code and related commodity group | GLV dollar value limits | Validated license required | Commodity lists |
|---|---|---|---|---|---|---|
| | Off-the-road haulers (report tractors separately under appropriate Schedule B number): | | | | | |
| 72227 | Off-the-road haulers, front and rear drive, including electric all wheel drive (formerly 722027). (1)[2] | No. | CONS 1 | None | RO | A |
| | Construction and maintenance equipment, n. e. c., and specially fabricated parts and accessories, n. e. c.: | | | | | |
| 72245 | Parts and accessories, n. e. c., specially fabricated for off-the-road haulers, front and rear drive (including electric all wheel drive) (formerly 722045). (1)[2] | ---------- | CONS 1 | 500 | RO | A R |
| | Materials handling equipment and parts: | | | | | |
| 72511 | Internal-combustion engine powered industrial trucks or tractors, front and rear drive, 100 brake horsepower and over. (Specify brake horsepower.) (Report straddle carriers in 72507.) (Formerly 725005.)[2] | No. | CONS 1 | None | RO | A |
| 72540 | Parts, accessories, and attachments, n. e. c., specially fabricated for industrial trucks and wheel-type tractors included on the Positive List under Schedule B Nos. 72511 and 72520 for which validated license is required to both R and O destinations (formerly 725050).[2] | ---------- | CONS 1 | 500 | RO | A |

[1] The related commodity group number of the processing code is changed (see § 372.5 (f)).
[2] The symbol "A" is added in the column headed "Commodity Lists," indicating that on and after July 28, 1958, an Import Certificate will be required in support of a license application covering exportation of these commodities to the countries specified in § 373.2.
[2] The commodity description is revised without substantive change.

This part of the amendment shall become effective as of June 12, 1958, except as otherwise indicated in the footnotes.

Shipments of any commodities removed from general license to Country Group R or Country Group O destinations as a result of changes set forth in part 1 above which were on dock for lading, on lighter, laden aboard an exporting carrier, or in transit to a port of exit pursuant to actual orders for export prior to 12:01 a. m., June 19, 1958, may be exported under the previous general license provisions up to and including July 12, 1958. Any such shipment not laden aboard the exporting carrier on or before July 12, 1958, requires a validated license for export.

(Sec. 3, 63 Stat. 7, as amended; 50 U. S. C. App. 2023. E. O. 9630, 10 F. R. 12245, 3 CFR, 1945 Supp., E. O. 9919, 13 F. R. 59, 3 CFR, 1948 Supp.)

LORING K. MACY,
*Director,*
*Bureau of Foreign Commerce.*

[F. R. Doc. 58-4907; Filed, June 27, 1958; 8:45 a. m.]

# TITLE 42—PUBLIC HEALTH

## Chapter IV—Freedmen's Hospital, Department of Health, Education, and Welfare

## PART 401—ADMISSION AND OUT-PATIENT TREATMENT

### MODIFICATION OF RATES

1. Section 401.15 (b) is hereby amended to read as follows:

(b) Where a responsible nonprofit organization undertakes to pay for the hospitalization of its members or for the medical care of dependents of members of the uniformed services pursuant to section 201 of the Dependents' Medical Care Act (37 U. S. C. 411), the Superintendent, with the approval of the Surgeon General of the Public Health Service, may, without regard to the schedule set forth in § 401.6, enter into a contract with such organization to establish a rate which will take into consideration administrative economies in the operation of the hospital resulting

from such undertaking provided that such rate shall not in any event be less than 95 percent of the rate applicable to full-pay patients in accordance with § 401.7.

2. The above amendment shall be effective upon publication, it having been determined that notice and public procedure thereon are unnecessary and that an early effective date will expedite the payment of bills for hospital services furnished dependents of members of the uniformed services under Title II of the Dependents' Medical Care Act, Public Law 569, 84th Congress.

(R. S. 2038, as amended, sec. 1, 33 Stat. 1190, as amended, sec. 1, 37 Stat. 172, as amended, 59 Stat. 366, as amended; 32 D. C. Code 317, 318, 318a, 319)

Dated: June 13, 1958.

[SEAL] JOHN D. PORTERFIELD,
*Acting Surgeon General.*

Approved: June 24, 1958.

M. B. FOLSOM,
*Secretary.*

[F. R. Doc. 58-4943; Filed, June 27, 1958; 8:50 a. m.]

# TITLE 43—PUBLIC LANDS: INTERIOR

## Chapter I—Bureau of Land Management, Department of the Interior

### Appendix—Public Land Orders

[Public Land Order 1663]

[New Mexico 023844]

NEW MEXICO

WITHDRAWING LANDS IN NATIONAL FORESTS FOR USE OF FOREST SERVICE FOR RESEARCH PURPOSES

By virtue of the authority vested in the President by the act of June 4, 1897 (30 Stat. 34-36; 16 U. S. C. 473) and otherwise, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands within the national forests designated are hereby withdrawn from all forms of appropriation under the public land laws, including the mining but not the mineral leasing laws nor the act of July 31, 1947 (61 Stat. 681; 30 U. S. C. 601-604), and reserved for use of the Forest Service, Department of Agriculture, for research purposes:

NEW MEXICO PRINCIPAL MERIDIAN

CIBOLA NATIONAL FOREST

*Pine Flat Experimental Area*

T. 9 N., R. 6 E.,
Sec. 7, SW¼SE¼;
Sec. 18, NE¼.

The areas described aggregate 200 acres.

CARSON NATIONAL FOREST

*No Agua Experimental Range*

T. 29 N., R. 9 E.,
Sec. 32, N½;
Sec. 33, N½.

The areas described aggregate 640 acres.

*Cebolla Mesa Experimental Range*

T. 28 N., R. 12 E.,
Sec. 28, NW¼;
Sec. 29, E½NW¼, NE¼, and NW¼SE¼.

The areas described aggregate 440 acres.

LINCOLN NATIONAL FOREST

*Cloudcroft Experimental Forest*

T. 16 S., R. 11 E.,
Sec. 1, S½SE¼;
Sec. 12.
T. 15 S., R. 12 E.,
Sec. 25, S½, SE¼;
Sec. 36.
T. 16 S., R. 12 E.,
Sec. 7, lot 4;
Sec. 16.

The areas described aggregate 2,120 acres.

The total areas described aggregate 3,400 acres.

This order shall be subject to existing withdrawals for power site purposes so far as they affect any of the above-described lands, and shall take precedence over but not otherwise affect the existing reservation of the lands for national forest purposes.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 23, 1958.

[F. R. Doc. 58-4921; Filed, June 27, 1958; 8:45 a. m.]

[Public Land Order 1664]

[Fairbanks 014487]

ALASKA

WITHDRAWING PUBLIC LANDS FOR USE OF DEPARTMENT OF THE AIR FORCE FOR MILITARY PURPOSES

By virtue of the authority vested in the President and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands in Alaska are hereby withdrawn from all forms of appropriation under the public land laws, including the mining and mineral-leasing laws but not the act of July 31, 1947 (61 Stat. 681; 69 Stat. 367; 30 U. S. C. 601-604) as amended, and reserved for use of the Department of the Air Force for military purposes:

GRANITE MOUNTAIN AREA

TRACT "A"

Beginning at a point from which U. S. C. and G. S. Monument "Granite", bears North 400 feet, thence
West, 350 feet;
North, 1,000 feet;
East, 700 feet;
South, 1,000 feet;
West, 350 feet to the point of beginning.
The tract described contains approximately 16.07 acres.

TRACT "C"

Beginning at a point from which U. S. C. and G. S. Monument "Granite", bears N. 48°37' E., approximately 8,920 feet, thence
S. 01°03'30" E., 6,000 feet;
S. 88°56'30" W., 1,500 feet;
N. 01°03'30" W., 6,000 feet;
N. 88°56'30" E., 1,500 feet to the point of beginning.
The tract described contains approximately 206.61 acres.

TRACT "E"

Beginning at a point from which U. S. C. and G. S. Monument "Granite", bears S. 59° 51' W., 141 feet, N. 29°29' E., 4,700 feet, East, 350 feet and North, 400 feet, thence
S. 15° W., 200 feet;
N. 75° W., 200 feet;
N. 15° E., 200 feet;
S. 75° E., 200 feet to the point of beginning.
The tract described contains approximately 0.91 acres.

The Department of the Interior retains jurisdiction over the management of the surface and subsurface resources, including mineral resources, of the lands. No disposal of such resources will be made except under applicable public land laws with the concurrence of the Department of the Air Force, and, where necessary, only after appropriate modification of the provisions of this order.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 23, 1958.

[F. R. Doc. 58-4922; Filed, June 27, 1958; 8:45 a. m.]

[Public Land Order 1665]

[Anchorage 014664]

ALASKA

PARTIALLY REVOKING PUBLIC LAND ORDER NO. 903 OF JULY 3, 1953, WHICH RESERVED CERTAIN PUBLIC LANDS AS AIR NAVIGATION SITE WITHDRAWAL NO. 261

By virtue of the authority vested in the President and pursuant to Executive Order No. 10355 of May 26, 1952, and section 4 of the Act of May 24, 1928 (45 Stat. 729; 49 U. S. C. 214), it is ordered as follows:

Public Land Order No. 903 of July 3, 1953, so far as it reserved the following-described public lands in Alaska for use of the Civil Aeronautics Administration, Department of Commerce, as Air Navigation Site Withdrawal No. 261, is hereby revoked:

Beginning at a point 300 feet south of the shore line of Monti Bay on Meridian 139°44' W., from which U. S. L. M. No. 179, latitude 59°32'51" N., longitude 139°43'50" W., bears N. 51°46'30" E., 1167.2 feet, thence by metes and bounds:
South, 4,405.5 feet to parallel 59°32 N.,
West, 2,640.0 feet along parallel 59°32' N.,
North, 4,000.0 feet, approximately, to shore line of Monti Bay,
Northeasterly, 2,900.0 feet, approximately, along shore line of Monti Bay to Meridian 139°44' W.,
South 300.0 feet to point of beginning.

The tract described contains approximately 266 acres.

The lands are within the Tongass National Forest and shall be open, subject to any valid existing rights and the requirements of applicable law, to such applications, selections, and locations as are permitted on national forest lands effective at 10:00 a. m. on July 29, 1958.

Certain of the lands contain improvements, including towers and buildings which have been erected by the Civil Aeronautics Administration, and which it proposes to remove within the ensuing five years. Any sale, entry or location upon such lands, or use or disposal thereof, shall be subject to the right of the

United States, its officers, agents or employees, to maintain, repair, operate, improve or remove such improvements, and to enter upon the lands at any time or times for such purposes, and the United States shall retain all right, title and interest in and to such improvements until they have been removed or abandoned in place.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 23, 1958.

[F. R. Doc. 58-4923; Filed, June 27, 1958; 8:46 a. m.]

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[Public Land Order 1666]

COLORADO AND IDAHO

RESERVING LANDS WITHIN WHITE RIVER AND PIKE NATIONAL FORESTS, COLORADO, AND PAYETTE NATIONAL FOREST, IDAHO, FOR USE OF FOREST SERVICE AS RECREATION AREAS; ADDING LANDS TO THOSE WITHDRAWN BY PUBLIC LAND ORDER NO. 1374 OF DECEMBER 20, 1956, AND PARTIALLY REVOKING THAT ORDER

By virtue of the authority vested in the President by the act of June 4, 1897 (30 Stat. 34, 36; 16 U. S. C. 473), and otherwise, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

1. Subject to valid existing rights, the following-described public lands within the national forests named, are hereby withdrawn from all forms of appropriation under the public-land laws, including the mining, but not the mineral leasing laws nor the act of July 31, 1947 (61 Stat. 681; 30 U. S. C. 601–604) as amended, and reserved for use of the Forest Service, Department of Agriculture, for recreation areas, as indicated:

COLORADO

Colorado 012689

SIXTH PRINCIPAL MERIDIAN

WHITE RIVER NATIONAL FOREST

*Heart Lake Recreation Area*

T. 3 S., R. 88 W. (unsurveyed),
Sec. 19, SW¼SW¼NW¼, W½NW¼SW¼, and SW¼SW¼;
Sec. 30, NW¼, and NW¼SW¼.
T. 3 S., R. 89 W.,
Sec. 24, S½S½NE¼, E½NE¼SW¼, SW¼NE¼SW¼, SW¼SW¼SW¼, E½SW¼SW¼, SE¼SW¼, and SE¼;
Sec. 25, NE¼, NW¼, and N½SE¼;
Sec. 26, E½E½NE¼.
The areas described aggregate 1,010 acres.

PIKE NATIONAL FOREST

*Buffalo Creek Recreation Area*

T. 8 S., R. 70 W.,
Sec. 6, W½SW¼;
Sec. 19, N½NE¼, and N½N½NW¼;
Sec. 20, NW¼NW¼.
T. 8 S., R. 71 W.,
Sec. 1, SE¼SW¼, SW¼SE¼, and E½SE¼;
Sec. 11, S½S½NE¼, S½SE¼NW¼, S½NW¼SW¼, SW¼SW¼, E½SW¼, NW¼NW¼SE¼;
Sec. 12, N½NE¼NE¼, NE¼NW¼NW¼, and W½SE¼NW¼NW¼;
Sec. 14, NW¼NW¼, and SE¼NW¼;
Sec. 15, E½NE¼, SE¼SW¼, and SE¼;
Sec. 16, E½SW¼NW¼, SE¼NW¼, E½NW¼SW¼, SW¼SW¼;
Sec. 17, S½N½SW¼, N½S½SW¼, S½NW¼SE¼, N½SW¼SE¼, SE¼SE¼;
Sec. 18, S½NE¼SE¼, N½NW¼SE¼, and N½SE¼SE¼;
Sec. 20, E½SW¼SE¼;
Sec. 21, S½N½NE¼, N½S½NE¼, S½SW¼NE¼, N½NW¼, E½SE¼NW¼, E½NE¼SW¼, SW¼NE¼SW¼, NE¼SW¼SW¼, N½SE¼SW¼, and W½NW¼SE¼;
Sec. 22, N½NE¼, N½S½NE¼, SE¼SE¼NE¼, NE¼NW¼, and N½S½NW¼;
Sec. 23, N½N½, E½SE¼NE¼, SW¼NW¼, N½SW¼, and SE¼SW¼;
Sec. 24, N½NE¼NE¼, NE¼NW¼NE¼, W½W½NE¼, and S½NW¼;
Sec. 29, E½NW¼NE¼, SW¼NE¼, and W½SE¼.
The areas described aggregate 2,485.36 acres.

IDAHO

Idaho 05280

(Addition to Lands Withdrawn by Public Land Order No. 1374)

BOISE MERIDIAN

PAYETTE NATIONAL FOREST

*Hard Butte Lakes Recreation Area*

T. 22 N., R. 2 E.,
Sec. 9, E½NE¼NE¼.

The area described contains 20 acres.
The total area withdrawn by this order is 3,515.36 acres.

2. Public Land Order No. 1374 of December 20, 1956, withdrawing lands for use of the Forest Service, Department of Agriculture, is hereby revoked so far as it affects the following-described lands:

T. 22 N., R. 2 E.,
Sec. 10, E½NE¼NE¼.
The area described contains 20 acres.

3. Beginning at 10:00 a. m. on July 30, 1958, the lands released from withdrawal by paragraph 2 of this order shall be open, subject to valid existing rights and the requirements of applicable law, to such applications, selections and locations as may be made on national forest lands.

4. The withdrawals made by this order shall take precedence over but not otherwise affect the existing reservation of the lands for national forest purposes.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 24, 1958.

[F. R. Doc. 58-4924; Filed, June 27, 1958; 8:46 a. m.]

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[Public Land Order 1667]

[Fairbanks 09919]

ALASKA

WITHDRAWING LANDS FOR NATIONAL PARK PURPOSES; REVOKING EXECUTIVE ORDERS NOS. 3617 OF JANUARY 13, 1922 AND 3800 OF MARCH 2, 1923

By virtue of the authority vested in the President, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

1. Subject to valid existing rights, the following-described lands comprising a portion of Mount McKinley National Park, Alaska, are hereby withdrawn from all forms of appropriation under the public-land laws, including the mining laws, and reserved as administrative sites and for the protection and preservation of scenic and recreational areas:

FAIRBANKS MERIDIAN

(a) Mt. McKinley National Park Area.
T. 14 S., R. 6 W. (Unsurveyed).
Sec. 18, that portion west of the Nenana River.
T. 13 S., R. 7 W. (Unsurveyed),
Sec. 31, S½;
Sec. 32;
Secs. 33 and 34, those portions west of the Nenana River.
T. 14 S., R. 7 W. (Partly Unsurveyed),
Secs. 4, 5, 6, 7, 8, 9, 14, and 15;
Secs. 3, 10, 11, 12, and 13, those portions west of the Nenana River.
T. 14 S., R. 8 W. (Unsurveyed),
Secs. 1, 2, 11, and 12.
The areas described aggregate approximately 10,900 acres.

(b) An area one half mile in width on each side of the centerline of the Mount McKinley National Park Highway between:
The intersection of the highway with the west boundary of unsurveyed secs. 2 and 11, T. 14 S., R. 8 W., and mile 10.0;
Mile 13.5 and Mile 29.0;
Mile 30.5 and Mile 42.0;
Mile 43.5 and Mile 45.5;
Mile 46.5 and Mile 52.0;
Mile 54.5 and Mile 65.0;
Mile 67.0 and Mile 81.5.

(c) An area one mile in width on each side of the centerline of the Mount McKinley National Park Highway between:
Mile 10.0 and Mile 13.5 (Savage River Area);
Mile 29.0 and Mile 30.5 (Toklanika River Area);
Mile 42.0 and Mile 43.5 (Rust Fork Toklat River Area);
Mile 45.5 and Mile 46.5 (Polychrome Pass Area);
Mile 52.0 and Mile 54.5 (Toklat River Area);
Mile 52.0 and Mile 54.5 (Toklat River Area);
Mile 65.0 and Mile 67.0 (Camp Eielson Area).

(d) Beginning at Mile 81.5 thence
North to the north boundary line of Mount McKinley National Park:
West, 4.0 miles along the north boundary line;
South, 5.5 miles;
East, 3.8 miles;
Northerly, to the point of beginning.
The areas described aggregate approximately 70,150 acres.

The total area withdrawn by this order is approximately 81,050 acres.

2. Executive Orders Nos. 3617 of January 13, 1922 and 3800 of March 2, 1923, reserving lands in T. 14 S., Rs. 7 and 8 W., for use in connection with the administration of the Mount McKinley National Park, are hereby revoked.

3. This order shall be subject to the withdrawals made for railroad purposes by Executive Orders No. 3946 of January 21, 1924 and No. 5125 of May 23, 1929, so far as these orders affect the lands in T. 14 S., R. 7 W.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 24, 1958.

[F. R. Doc. 58-4925; Filed, June 27, 1958; 8:46 a. m.]

[Public Land Order 1668]

[Fairbanks 014221]

ALASKA

WITHDRAWING PUBLIC LANDS FOR RECREATIONAL PURPOSES

By virtue of the authority vested in the President and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands in Alaska, are hereby withdrawn from all forms of appropriation under the public land laws, including the mining but not the mineral-leasing laws nor the act of July 31, 1947 (61 Stat. 681; 69 Stat. 367; 30 U. S. C. 601–604) as amended, and reserved for administration, conveyance or other disposition in accordance with the provisions of the act of May 4, 1956 (70 Stat. 130) as amended by the act of August 30, 1957 (71 Stat. 510):

TAYLOR HIGHWAY AREA

1. Beginning at the southeast corner of the bridge crossing Logging Cabin Creek on the Taylor Highway located approximately 63°48'15" N. Latitude and 142°14' W. Longitude, thence
N. 1°00' E., 5 chains to point of beginning, thence
N. 45° W., 10 chains;
S. 45° W., 5 chains;
S. 45° E., 10 Chains;
N. 45° E., 5 chains to point of beginning.
The tract described contains approximately 5 acres.

2. Beginning at the center of the bridge crossing King Solomon Creek on the Taylor Highway located approximately 64°30' N. Latitude and 141°12' W. Longitude, thence
East, 4 chains;
South, 6 chains;
West, 4 chains to center of the highway;
North, 6 chains following center of highway and to point of beginning.
The tract described contains 2.4 acres.

3. Beginning at a point on the centerline of the Taylor Highway approximate Latitude 64°41'30" N., Longitude 141°18'30" W., from which the junction of Marion Creek and American Creek bears N. 45° E., 96 chains, thence
N. 52° W., 4 chains;
S. 38° W., 5 chains;
S. 52° E., 4 chains;
N. 38° E., 5 chains following center of highway to Corner No. 1 and point of beginning.
The tract described contains approximately 2 acres.

The areas described total in the aggregate 9.4 acres.

ROGER ERNST,
*Assistant Secretary of the Interior.*

JUNE 24, 1958.

[F. R. Doc. 58-4926; Filed, June 27, 1958; 8:46 a. m.]

## TITLE 49—TRANSPORTATION

### Chapter I—Interstate Commerce Commission

[5th Rev. S. O. 95, Amdt. 7]

PART 95—CAR SERVICE

APPOINTMENT OF REFRIGERATOR CAR AGENT

At a session of the Interstate Commerce Commission, Division 3, held at its office in Washington, D. C., on the 23rd day of June A. D. 1958.

Upon further consideration of the provisions of Fifth Revised Service Order No. 95 (18 F. R. 473, 3732, 7642; 19 F. R. 4003, 20 F. R. 4688; 21 F. R. 4314; 22 F. R. 4488), and good cause appearing therefor:

*It is ordered*, That: Section 95.95 *Appointment of Refrigerator Car Agent*, of Fifth Revised Service Order No. 95, be, and it is hereby, amended by substituting the following paragraph (d) for paragraph (d) thereof:

(d) This order, as amended, shall expire at 11:59 p. m., June 30, 1959, unless otherwise modified, changed, suspended, or annulled by order of this Commission.

*It is further ordered*, That this amendment shall become effective at 11:59 p. m., June 30, 1958; that a copy of this order and direction be served upon the Association of American Railroads, Car Service Division, as Agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and that notice of this order be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Federal Register Division.

(Sec. 12, 24 Stat. 383, as amended; 49 U. S. C. 12. Interprets or applies secs. 1, 15, 24 Stat. 379, as amended, 384, as amended; 49 U. S. C. 1, 15)

By the Commission, Division 3.

[SEAL] HAROLD D. MCCOY,
*Secretary.*

[F. R. Doc. 58-4939; Filed, June 27, 1958; 8:49 a. m.]

# PROPOSED RULE MAKING

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

### [ 7 CFR Part 1022 ]

SWEET CHERRIES GROWN IN DESIGNATED COUNTIES IN WASHINGTON

NOTICE OF PROPOSED RULE MAKING WITH RESPECT TO APPROVAL OF RESERVE FUND

Consideration is being given to the following proposals submitted by the Washington Cherry Marketing Committee, established under the marketing agreement and Order No. 122 (7 CFR Part 1022; 22 F. R. 3835) regulating the handling of sweet cherries grown in designated counties in Washington, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), as the agency to administer the terms and provisions thereof: (1) That the Secretary of Agriculture find that the establishment of a reserve fund not to exceed the amount of $10,000.00 from excess assessments is appropriate for the maintenance and functioning of the said committee under the aforesaid marketing agreement and order; and (2) That any excess assessment funds from the fiscal period ending March 31, 1958, and subsequent fiscal periods shall be placed in said reserve fund until the said amount is accumulated.

The establishment of such a reserve is authorized under § 1022.42 of the aforesaid marketing agreement and order. The financial audit of the committee for the fiscal period ending March 31, 1958, shows excess assessments for such period of $1,476.27.

All persons who desire to submit written data, views, or arguments in connection with the aforesaid proposals should file the same with the Director, Fruit and Vegetable Division, Agricultural Marketing Service, United States Department of Agriculture, Room 2077, South Building, Washington 25, D. C., not later than the 10th day after the publication of this notice in the FEDERAL REGISTER.

Terms used in the marketing agreement and order shall, when used herein, have the same meaning as is given to the respective term in said marketing agreement and order.

Dated: June 25, 1958.

[SEAL] S. R. SMITH,
*Director, Fruit and Vegetable Division, Agricultural Marketing Service.*

[F. R. Doc. 58-4964; Filed, June 27, 1958; 8:53 a. m.]

# NOTICES

## CIVIL AERONAUTICS BOARD

[Docket No. 9376, etc.]

RIDDLE AIRLINES, INC., ET AL.

NOTICE OF ORAL ARGUMENT

In the matter of Riddle Airlines, Inc., Docket No. 9376; Slick Airways, Inc., Docket No. 9414; Aaxico Airlines, Inc., Docket No. 9439; The Flying Tiger Line, Inc., Docket No. 9530.

Oral argument ordered by the Board in the above-entitled matter in Order No. E-12684, dated June 23, 1958, is hereby assigned to be held on July 9, 1958, at 10:00 a. m., e. d. s. t., in Room 5042, Commerce Building, 14th Street and Constitution Avenue NW., Washington, D. C., before the Board.

Proponents and opponents will be allotted two hours each to be divided as they agree. Such persons should notify the Chief Examiner on or before July 1, 1958, of their time allotments.

Dated at Washington, D. C., June 24, 1958.

[SEAL] FRANCIS W. BROWN,
*Chief Examiner.*

[F. R. Doc. 58-4955; Filed, June 27, 1958; 8:52 a. m.]

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[Docket No. 9217 et al.]

STATES-ALASKA AIR SERVICES

NOTICE OF PREHEARING CONFERENCE

In the matter of an investigation instituted pursuant to Order No. E-12113.

Notice is hereby given that a prehearing conference in the above-entitled proceeding is assigned to be held on July 28, 1958, at 10:00 a. m., e. d. s. t., in Room 1509, Temporary Building No. 4, 17th Street and Constitution Avenue NW., Washington, D. C., before Examiner William J. Madden.

Dated at Washington, D. C., June 25, 1958.

[SEAL] FRANCIS W. BROWN,
*Chief Examiner.*

[F. R. Doc. 58-4956; Filed, June 27, 1958; 8:52 a. m.]

## ATOMIC ENERGY COMMISSION

[Docket No. 50-89]

GENERAL DYNAMICS CORP.

NOTICE OF ISSUANCE OF UTILIZATION FACILITY LICENSE

Please take notice that the Atomic Energy Commission has issued the following amendment (No. 1) to Facility License No. R-38 authorizing General Dynamics Corporation to perform the experiments described as the "Transient Reactivity Compensation Experiments" in the application filed under Docket No. 50-89 in the Corporation's facility located at Torrey Pines Mesa, California. The Commission has found that prior public notice of proposed issuance of this amendment is not necessary in the public interest since the conduct of the proposed additional experiments does not present any substantial changes in the hazards to the health and safety of the public from those presented by the previously approved operation of the facility.

A condition of License R-38 provides that the experiments described in the application as the "Transient Reactivity Compensation Experiments" may not be conducted unless and until approval is granted by the Commission after it has reviewed and evaluated the results obtained from conducting the experiments described in the application as the "Steady-state Reactivity Compensation Experiments." General Dynamics Corporation, by letters dated May 23, 1958, and May 27, 1958 has provided the results obtained from the "Steady-state Reactivity Compensation Experiments." The Commission has reviewed and evaluated these results and concluded that the experiments described in the application as the "Transient Reactivity Compensation Experiments" may be conducted without presenting undue hazard to the health and safety of the public.

In accordance with the Commission's rules of practice (10 CFR Part 2), the Commission will direct the holding of a formal hearing on the matter of the issuance of the license amendment upon receipt of a request therefor from the licensee or an intervener within 30 days after the issuance of this license amendment. For further details see (1) the application submitted by General Dynamics Corporation, and amendments thereto, and (2) a hazards analysis of the proposed experiments prepared by the Division of Licensing and Regulation, both on file at the Commission's Public Document Room, 1717 H Street NW., Washington, D. C. A copy of item (2) above may be obtained at the Commission's Public Document Room or upon request addressed to the Atomic Energy Commission, Washington 25, D. C. Attention: Director, Division of Licensing and Regulation.

Dated at Germantown, Md., this 23d day of June 1958.

For the Atomic Energy Commission.

H. L. PRICE,
*Director, Division of Licensing and Regulation.*

[License No. R-38, Amdt. 1]

AMENDMENT OF UTILIZATION FACILITY LICENSE

A condition of License R-38 which covers General Dynamics Corporation's TRIGA facility located at Torrey Pines Mesa, California provides that the experiments described as the "Transient Reactivity Compensation Experiments" in the application for license filed under Docket No. 50-89 may not be conducted in the facility unless and until approval is granted by the Commission after it has reviewed and evaluated the results obtained from conducting the experiments described in the application as the "Steady-state Reactivity Compensation Experiments." General Dynamics Corporation, by letters dated May 23, 1958, and May 27, 1958, has provided the results obtained from the "Steady-state Reactivity Compensation Experiments." The Commission has reviewed and evaluated the results and concluded that the "Transient Reactivity Compensation Experiments" can be conducted by the applicant in its facility described in License R-38 without presenting undue hazard to the health and safety of the public and that operation of the facility for the conduct of the experiments will not be inimical to the common defense and security.

Paragraph 2.A. of License No. R-38 is hereby amended to read as follows:

Pursuant to Section 104c of the Act and Title 10, CFR, Chapter 1, Part 50, "Licensing of Production and Utilization Facilities" to possess and operate the facility as a utilization facility and to conduct therein the experiments described in the application dated November 16, 1957 and amendments thereto dated December 9, 1957, February 12, 1958, May 23, 1958 and May 27, 1958, in accordance with the procedures described therein.

Paragraphs 3.A. and 3.B. are hereby deleted and paragraphs 3.C. and 3.D. are renumbered accordingly.

Dated: June 23, 1958.

For the Atomic Energy Commission.

H. L. PRICE,
*Director, Division of Licensing and Regulation.*

[F. R. Doc. 58-4920; Filed, June 27, 1958; 8:45 a. m.]

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MATERIALS, SERVICES, AND INFORMATION FOR CIVIL APPLICATION

DISTRIBUTION OF DEPLETED URANIUM

This notice concerns the Commission's policy for the distribution and sale of depleted uranium (i. e. uranium containing less than the approximately 0.0071 weight fraction of uranium-235 which occurs in nature).

1. The Commission has available and will sell depleted uranium as uranium hexafluoride. All domestic sales will be subject to the Commission's licensing requirements as set forth in the regulations in Title 10, Chapter I, Code of Federal Regulations.

2. The following schedule of charges has been established for depleted uranium sold by the Commission:

BASE CHARGES FOR DEPLETED URANIUM FURNISHED BY AEC AS $UF_6$, F. O. B. PADUCAH, KENTUCKY

| Assay weight fraction U-235 | Charge per kg. U | Assay weight fraction U-235 | Charge per kg. U |
|---|---|---|---|
| 0.0036 and lower | $5.00 | 0.0058 | $24.75 |
| 0.0040 | 8.15 | 0.0060 | 26.90 |
| 0.0050 | 16.65 | 0.0062 | 29.00 |
| 0.0052 | 18.65 | 0.0064 | 31.25 |
| 0.0054 | 20.65 | 0.0066 | 33.50 |
| 0.0056 | 22.65 | 0.0068 | 35.75 |
| | | 0.0070 | 38.15 |

a. Charges for material of intermediate assay will be determined by linear interpolation between the nearest stated assays.

b. Purchasers not specifying a desired assay will be sold depleted uranium as-

saying 0.0022 (±0.0002) weight fraction U–235 at $5.00 per kg. U as $UF_6$.

c. The Commission's prices for sale of depleted uranium are subject to change. However, it is the intention of the Commission to keep its prices as stable as possible.

3. The charges and terms herein apply also to sale of depleted uranium to friendly foreign nations. Distribution of depleted uranium abroad will be subject to applicable provisions of law and regulations and appropriate safeguards against diversion to non-peaceful uses.

4. Additional information including specifications may be obtained from the United States Atomic Energy Commission, Office of Industrial Development, Washington 25, D. C.

Dated at Germantown, Md., this 19th day of June 1958.

For the Atomic Energy Commission.

R. W. Cook,
*Deputy General Manager.*

[F. R. Doc. 58-4946; Filed, June 27, 1958; 8:51 a. m.]

# DEPARTMENT OF THE INTERIOR

## Bureau of Land Management

### Mississippi

### NOTICE OF PROPOSED WITHDRAWAL

June 24, 1958.

The Office of the Assistant Secretary, Department of Agriculture, Washington 25, D. C., has filed an application for the withdrawal from location and entry, under the United States Mining Laws, for use of the Forest Service, subject to valid existing rights, the land hereafter described.

The land is within the De Soto National Forest and the Harrison Experimental Forest, Mississippi, and is needed for research purposes.

For a period of 30 days from the date of publication of this notice, persons having cause may present their objections in writing to the undersigned official of the Bureau of Land Management, Department of the Interior, Washington 25, D. C.

If circumstances warrant it, a public hearing will be held at a convenient time and place, which will be announced.

The determination of the Secretary on the application will be published in the Federal Register. A separate notice will be sent to each interested party of record.

The land involved in the application is:

St. Stephens Meridian, Mississippi

T. 5 S., R. 11 W.,
Sec. 1, NE¼NW¼.

The area described contains 40 acres.

H. K. Scholl,
*Manager.*

[F. R. Doc. 58-4927; Filed, June 27, 1958; 8:47 a. m.]

## Bureau of Reclamation

[Public Announcement 28]

### Columbia Basin Project, Washington; South Columbia Basin Irrigation District

### PUBLIC ANNOUNCEMENT OF THE SALE OF FULL-TIME FARM UNITS

### LANDS COVERED

June 13, 1958.

Section 1. *Offer of farm units for sale.* It is hereby announced that certain farm units in the South Columbia Basin Irrigation District, Columbia Basin Project, Washington, will be sold to qualified applicants in accordance with the provisions of this announcement. Applications for certificates of qualification to purchase farm units may be submitted beginning at 2:00 p. m., July 1, 1958.

In order to permit the continued orderly development and settlement of project lands, this public announcement is issued irrespective of there being pending applications for exchange pursuant to the act of August 13, 1953 (67 Stat. 566).

(a) *Farm units presently owned.* The farm units which are presently owned by the United States, and hereby offered for sale, are described as follows:

| Irrig. block No. | Farm unit No. | Gross acres | Tentative irrigable acreage | | | | Non-irrigable | Price |
|---|---|---|---|---|---|---|---|---|
| | | | Total | Class 1 | Class 2 | Class 3 | | |
| 3 | 2 | 151.5 | 123.2 | | 27.3 | 95.9 | 28.3 | $2,687.70 |
| | 3 | 137.7 | 97.5 | | 44.1 | 53.4 | 40.2 | 2,167.20 |
| | 8 | 129.2 | 71.5 | | 55.6 | 15.9 | 57.7 | 2,083.80 |
| | 9 | 161.2 | 106.0 | | 12.4 | 93.6 | 55.2 | 2,138.70 |
| | 19 | 138.4 | 90.9 | | 2.8 | 88.1 | 47.5 | 2,077.75 |
| | 20 | 159.4 | 108.0 | | 3.3 | 104.7 | 51.4 | 1,820.50 |
| | 22 | 193.0 | 139.3 | | 1.6 | 137.7 | 53.7 | 2,284.25 |
| | 25 | 168.2 | 139.9 | | 43.7 | 96.2 | 28.3 | 2,352.70 |
| | 28 | 196.2 | 133.7 | | | 133.7 | 62.5 | 2,282.75 |
| | 29 | 179.7 | 110.8 | | 0.9 | 109.9 | 68.9 | 1,984.90 |
| | 31 | 114.8 | 101.6 | | 74.5 | 27.1 | 13.2 | 2,000.30 |
| | 32 | 130.3 | 122.2 | | 59.0 | 63.2 | 8.1 | 1,778.50 |
| | 33 | 120.6 | 108.5 | | 61.2 | 47.3 | 12.1 | 1,715.20 |
| | 34 | 212.5 | 159.0 | | 31.9 | 127.1 | 53.5 | 2,432.50 |

(b) *Additional farm units.* If, through the operation of its land acquisition program, the United States should, following the date of this announcement and prior to the date on which the first farm unit is offered for selection to an applicant under the provisions hereof, own additional farm units in the South Columbia Basin Irrigation District which are scheduled to receive water before the close of the 1958 irrigation season, such farm units may be offered for sale under the provisions of this announcement.

The official plat of Irrigation Block 3 is on file in the office of the County Auditor of Walla Walla County in Walla Walla, Washington, and copies are available in the offices of the Bureau of Reclamation at Ephrata, Washington, and Boise, Idaho.

Sec. 2. *Limit of acreage which may be purchased.* The lands covered by this announcement have been divided into farm units. Each of the farm units represents the acreage which, in the opinion of the Regional Director, Region 1, Bureau of Reclamation, will support an average size family at a suitable level of living. The law provides that no farm unit shall be sold to, and no contract to sell a farm unit shall be entered into with any person who, or a member of whose family, has theretofore purchased or entered into a contract to purchase a farm unit under the Columbia Basin Project Act or then owns a farm unit within the Columbia Basin Project, except those whose farm units have been acquired by the United States for exchange purposes. A family is defined as comprising husband or wife, or both, together with their children under 18 years of age, or all of such children if both parents are dead.

### PREFERENCE OF APPLICANTS

Sec. 3. *Nature of preference.* Except for a prior preference given applicants for exchange under the provisions of the act of August 13, 1953 (67 Stat. 566), who are hereinafter called "exchange applicants," preference right to purchase the farm units described above will be given to veterans (and in some cases to their husbands or wives or guardians of minor children) who submit applications during a 45-day period beginning at 2:00 p. m., July 1, 1958, and ending at 2:00 p. m., August 15, 1958, and who, at the time of making application, are in one of the following five classes:

(a) Persons, including those under 21 years of age, who have served in the Army, Navy, Marine Corps, Air Force, or Coast Guard of the United States for a period of at least ninety (90) days at any time between September 16, 1940, and the official termination of the Korean conflict, and who have been honorably discharged.

(b) Persons, including those under 21 years of age, who have served in the Army, Navy, Marine Corps, Air Force, or Coast Guard of the United States during the period prescribed in subsection (a) of this section, regardless of length of service, and who have been discharged on account of wounds received or disability incurred during such period in the line of duty or, subsequent to a regular discharge, have been furnished hospitalization or awarded compensation by the Government on account of such wounds or disability.

(c) The spouse of any person in either of the first two classes listed in this section, if the spouse has the consent of such person to exercise his or her preference right and submits written proof of such consent with the application. (See subsection 7 (d) of this announcement regarding the provision that a married woman must be head of a family.)

(d) The surviving spouse of any person in either of the first two classes listed in this section or, in the case of the death or marriage of such spouse, the minor

child or children of such person by guardian duly appointed and qualified and who furnishes to the examining board acceptable evidence of such appointment and qualification.

(e) The surviving spouse of any person whose death has resulted from wounds received or disability incurred in the line of duty while serving in the Army, Navy, Marine Corps, Air Force, or Coast Guard during the period described in subsection (a) of this section or, in the case of death or marriage of such spouse, the minor child or children of such person by a guardian duly appointed and qualified and who furnishes to the examining board acceptable evidence of such appointment and qualification.

SEC. 4. *Definition of honorable discharge.* An honorable discharge means:

(a) Separation from the service by means of an honorable discharge or by the acceptance of resignation or a discharge under honorable conditions.

(b) Release from active duty under honorable conditions to an inactive status, whether or not in a reserve component, or retirement.

Any person who obtains an honorable discharge as herein defined shall be entitled to veterans preference even though such person thereafter resumes active military duty.

QUALIFICATIONS REQUIRED OF PURCHASERS

SEC. 5. *Examining board.* An examining board of three members has been appointed by the Regional Director, Region 1, Bureau of Reclamation, to determine the qualifications and fitness of applicants to undertake the purchase, development, and operation of a farm on the Columbia Basin Project. The Board will make careful investigations to verify the statements and representations made by applicants. Any false statements may constitute grounds for rejection of an application and cancellation of the applicant's right to purchase a farm unit.

SEC. 6. *Minimum qualifications.* Certain minimum qualifications have been established which are considered necessary for the successful development of farm units. Applicants, unless qualified exchange applicants, must, in the judgment of the examining board, meet these qualifications in order to be eligible for the purchase of farm units. Failure to meet them in any single respect will be sufficient cause for rejection of an application. No credit will be given for qualifications in excess of the required minimum.

The minimum qualifications are as follows:

(a) *Character and industry.* An applicant must be possessed of honesty, temperate habits, thrift, industry, seriousness of purpose, record of good moral conduct, and a bona fide intent to engage in farming as an occupation.

(b) *Farm experience.* Except as otherwise provided in this subsection, an applicant must have had a minimum of two years (24 months) of full-time farm experience, which shall consist of participation in actual farming operations, after attaining the age of 15 years. Time spent in agricultural courses in an accredited agricultural college or time spent in work closely associated with farming, such as teaching vocational agriculture, agricultural extension work, or field work in the production or marketing of farm products, which, in the opinion of the Board will be of value to an applicant in operating a farm, may be substituted for full-time farm experience. Such substitution shall be on the basis of one year (academic year of at least nine months) of agricultural college courses or one year (twelve months) of work closely associated with farming for six months of full-time farm experience. Not more than one year of full-time farm experience of this type will be allowed. A farm youth who actually resided and worked on a farm after attaining the age of 15 and while attending school may credit such experience as full-time experience.

Applicants who have acquired their experience on an irrigated farm will not be given preference over those whose experience was acquired on a nonirrigated farm, but all applicants must have had farm experience of such nature as in the judgment of the examining board will qualify the applicant to undertake the development and operation of an irrigated farm by modern methods.

(c) *Health.* An applicant must be in such physical condition as will enable him to engage in normal farm labor.

(d) *Capital.* To qualify for farms listed in section 1, applicants must either (1) possess assets amounting to at least $8,500 in excess of liabilities, of which at least $5,000 must be in cash; or (2) possess at least $7,500 in cash. In addition, at the time he moves to the Project to take possession of the farm unit selected and prior to execution of the land sale contract, the applicant must be prepared to re-establish to the satisfaction of the Project Manager that he possesses in cash or in cash and property useful in developing the farm the minimum net worth required under either of the above alternates.

Assets must consist of cash and property readily convertible into cash or property such as livestock or farm machinery and equipment which, in the opinion of the Board and the Project Manager, will be useful in the development and operation of a new, irrigated farm. When considering farm machinery, the Board and the Project Manager will credit only that equipment which is adapted for use on the Columbia Basin Project. No value will be allowed for a passenger car or household goods. Property not useful in the development of a farm will be considered if the applicant furnishes, at the Board's request, evidence of the value of the property and proof of its conversion into useful form. This conversion can be made before execution of the earnest money agreement or the land sale contract, whichever the Board believes appropriate.

Before executing a land sale contract and acquiring the right of possession of the farm unit, the purchaser must establish, to the satisfaction of the Project Manager, that he has moved to the project to take possession of the farm unit selected and re-established his net worth as required above, except that the amount paid as an earnest money deposit can be credited as part of the assets making up the applicant's total net worth.

SEC. 7. *Other qualifications required.* Each applicant (except guardian) must meet the following requirements:

(a) Be a citizen of the United States or have declared an intention to become a citizen of the United States.

(b) In addition to the limitations in section 2, not own outright, or control under a contract to purchase, more than 10 acres of crop land or a total of 160 acres of land at the time of execution of a purchase contract for a farm unit.

(c) Not previously have purchased a full-time farm from the United States under provisions of the Reclamation Law, excepting therefrom actions under the act of August 13, 1953.

(d) Not have outstanding a certificate of qualification for the purchase of a farm unit on the Columbia Basin Project.

(e) If a married woman or a person under 21 years of age who is not eligible for veterans preference, be the head of a family. The head of a family is ordinarily the husband, but a wife or a minor child who is obliged to assume major responsibility for the support of a family may be the head of a family.

WHERE AND HOW TO SUBMIT AN APPLICATION

SEC. 8. *Filing application blanks.* Any person desiring to apply for a certificate of qualification to purchase a farm unit offered for sale by this announcement must fill out the attached application blank and file it with the Bureau of Reclamation, Ephrata, Washington, in person or by mail. Additional application blanks may be obtained from the office of the Bureau of Reclamation at Ephrata, Washington; Post Office Box 937, Boise, Idaho; or Washington, D. C. No advantage will accrue to an applicant who presents an application in person. Each application submitted, including the evidence of qualification to be submitted following the public drawing, will become a part of the records of the Bureau of Reclamation and cannot be returned to the applicant.

SELECTION OF QUALIFIED APPLICANTS

SEC. 9. *Priority of applications.* All applications except those received from qualified exchange applicants prior to 2:00 p. m., August 15, 1958, which shall be given prior preference, will be classified for priority purposes as follows:

(a) *First Priority Group.* All complete applications filed prior to 2:00 p. m., August 15, 1958, by applicants who claim veterans preference. Such applications will be treated as simultaneously filed.

(b) *Second Priority Group.* All complete applications filed prior to 2:00 p. m., August 15, 1958, by applicants who do not claim veterans preference. Such applications will be treated as simultaneously filed.

(c) *Third Group.* All complete applications filed after 2:00 p. m., August 15, 1958. Such applications will be considered in the order in which they are filed

if any farm units are available for sale to applicants within this group.

SEC. 10. *Public drawing.* After the priority classification, the Board will conduct a public drawing of the names of the applicants in the First Priority Group as defined in subsection 9 (a) of this announcement. Applicants need not be present at the drawing to participate therein. The names of a sufficient number of applicants (not less than four times the number of farm units to be offered for sale) shall be drawn and numbered in the order drawn for the purpose of establishing the order in which the applications drawn will be examined by the Board to determine whether the applicants meet the minimum qualifications prescribed in this announcement and to establish the priority of qualified applicants for the selection of farm units. After such drawing, the Board shall notify each applicant of his respective standing as a result of the drawing.

SEC. 11. *Submission of evidence of qualification.* After the drawing, a sufficient number of applicants, in the order of their priority as established by the drawing, will be supplied with forms on which to submit evidence of qualification showing that they meet the qualifications set forth in sections 6 and 7 of this announcement and, in case veterans preference is claimed, establishing proof of such preference, as set forth in section 3 of this announcement. Full and accurate answers must be made to all questions. The completed form, together with any attachments required, must be mailed or delivered to the Land Settlement Branch, Bureau of Reclamation, Ephrata, Washington, within 20 days of the date the form is mailed to the last address furnished by the applicant. Failure of an applicant to furnish all of the information requested or to see that information is furnished by his references within the time period specified will subject his application to rejection.

SEC. 12. *Examination and interview.* After the information outlined in section 11 of this announcement has been received or the time for submitting such statements has expired, the Board shall examine in the order drawn a sufficient number of applications, together with the evidence of qualification submitted, to determine the applicants who will be permitted to purchase farm units. This examination will determine the sufficiency, authenticity, and reliability of the information and evidence submitted by the applicants.

If the applicant fails to supply any of the information required or the Board finds that the applicant's qualifications do not meet the requirements prescribed in this announcement, the applicant shall be disqualified and shall be notified by the Board, by certified mail, of such disqualification and the reasons therefor and of the right to appeal to the Regional Director, Region 1, Bureau of Reclamation. All appeals must be received in the office of the Land Settlement Branch, Bureau of Reclamation, Ephrata, Washington, within 15 days of the applicant's receipt of such notice or, in any event, within 30 days from the date when the notice is mailed to the last address furnished by the applicant. The Land Settlement Branch will promptly forward the appeal to the Regional Director.

If the examination indicates that an applicant is qualified, the applicant may be required to appear for a personal interview with the Board for the purpose of: (a) Affording the Board any additional information it may desire relative to his qualifications; (b) affording the applicant any information desired relative to conditions in the area and the problems and obligations relative to development of a farm unit; and (c) affording the applicant an opportunity to examine the farm units.

If an applicant fails to appear before the Board for a personal interview on the date requested, he will thereby forfeit his priority position as determined by the drawing.

If the Board finds that an applicant's qualifications fulfill the requirements prescribed in this announcement, such applicant shall be notified, in person or by certified mail, that he is a qualified applicant and shall be given an opportunity to select one of the farm units available then for purchase. Such notice will require the applicant to make a field examination of the farm units available to him and in which he is interested, to select a farm unit, and to notify the Board of such selection within the time specified in the notice.

SELECTION OF FARM UNITS

SEC. 13. *Order of selection.* The applicants who have been notified of their qualification for the purchase of a farm unit will successively exercise the right to select a farm unit in accordance with the priority established by the drawing. If a farm unit becomes available through failure of a qualified applicant to exercise his right of selection or failure to complete his purchase, it will be offered to the next qualified applicant who has not made a selection at the time the unit is again available. An applicant who is considered to be disqualified as a result of the personal interview will be permitted to exercise his right to select, notwithstanding his disqualification, unless he voluntarily surrenders this right in writing. If, on appeal, the action of the Board in disqualifying an applicant as a result of the personal interview is reversed by the Regional Director, the applicant's selection shall be effective, but if such action of the Board is upheld by the Regional Director, the farm unit selected by this applicant will become available for selection by qualified applicants who have not exercised their right to select.

If any of the farm units listed in this announcement remain unselected after all qualified applicants whose names were selected in the drawing have had an opportunity to select a farm unit, and if additional applicants remain in the First Priority Group, the Board will follow the same procedure outlined in section 10 of this announcement in the selection of additional applicants from this group.

If any of the farm units remain unselected after all qualified applicants in the First Priority Group have had an opportunity to select a farm unit, the Board will follow the same procedure to select applicants from the Second Priority Group, and they will be permitted to exercise their right to select a farm unit in the manner prescribed for the qualified applicants from the First Priority Group.

Any farm units remaining unselected after all qualified applicants in the Second Priority Group have had an opportunity to select a farm unit will be offered to applicants in the Third Group in the order in which their applications were filed, subject to the determination of the Board, made in accordance with the procedure prescribed herein, that such applicants meet the minimum qualifications prescribed in this announcement.

If any farm units offered by or under this announcement remain unsold for a period of two years following the date of this announcement, the Project Manager, Columbia Basin Project, Bureau of Reclamation, may sell, lease, or otherwise dispose of such units to qualified applicants without regard to the provisions of section 10 of this announcement.

SEC. 14. *Failure to select.* If any applicant, except a qualified exchange applicant, refuses to select a farm unit or fails to do so within the time specified by the Board, such applicant shall forfeit his position in his priority group and his name shall be placed last in that group.

PURCHASE OF SELECTED UNIT

SEC. 15. *Execution of earnest money agreement and land sale contract.* When a farm unit is selected by an applicant as provided in section 13 of this announcement, the Project Manager will promptly give the applicant a written notice confirming the availability to him of the unit selected and will furnish an earnest money agreement together with instructions concerning its execution and return. In that notice, the Project Manager will inform the applicant of the amount of his down payment and the amount of the irrigation charges assessed by the irrigation district or, if such charges have not been assessed, of an estimate of the amount of the charges for the first year of the development period, to be deposited with the irrigation district.

The earnest money agreement will require the applicant to deposit $200 or 5 percent of the purchase price of the farm, whichever amount is greater, with the Project Manager. The amount deposited with the Earnest Money Agreement will be applied to the down payment if the applicant (1) submits proof that he has moved to the Columbia Basin Project before February 1, 1959, or within 6 months of the Earnest Money Agreement, whichever is later, and possesses the minimum capital assets required under subsection 6 (d), (2) pays the irrigation charges assessed by the irrigation district or estimated for the first full irrigation season of the development period following the date of the contract, (3) pays the remainder of the required

down payment on the purchase price of the farm unit, and (4) executes a land sale contract in accordance with the Project Manager's instructions. If the applicant fails to comply with any of the four requirements described in this paragraph, he will forfeit his right to purchase the farm unit and the amount he has deposited as earnest money will be retained by the United States as liquidated damages.

When the applicant submits proof to the Project Manager or his representative that he has moved to the Project to take possession of the farm unit and that he possesses the minimum capital assets required under subsection 6 (d), the Project Manager will promptly furnish the applicant the necessary land sale contract, together with instructions concerning its execution and return. Such proof shall be in the form of an affidavit that he has actually moved to the project area, a current financial statement, and, where appropriate, a personal inspection of farm equipment by a representative of the Project Manager.

If the purchase is made subsequent to April 1 of any year during the development period, a deposit will be required to cover payment of water charges for the balance of that year as well as for the year following the purchase.

SEC. 16. *Terms of sale.* Contracts for the sale of farm units pursuant to this announcement will contain among others, the following principal provisions:

(a) *Down payment.* An initial or down payment of $400 or 10 percent of the purchase price of the lands being purchased from the United States, whichever is larger, will be required. Larger proportions or the entire amount of the price may be paid initially at the purchaser's option.

(b) *Schedule for payment of balance; interest rate.* If only a portion of the purchase price is paid initially, the remainder will be payable within a period of 20 years following the date of the contract. No payments on the principal, except the down payment, will be required during the first three years, and the Project Manager may postpone such payments for as long as the first five years of the contract. Interest on the unpaid balance at the rate of three percent per annum, however, will be payable annually. When payments on the principal are resumed, they will be payable each year. The schedule of principal payments, which will be established by the Project Manager, will provide for relatively small payments during the first years and larger payments during the later years of the contract period. Payment of any or all installments, or any portion thereof, may be made before their due dates at the purchaser's option.

(c) *Development requirements.* In order that the irrigable area of the entire farm unit shall be developed with reasonable dispatch, each purchaser will be required, as a minimum, to clear, level, irrigate, and plant to crops by the end of each of the calendar years indicated below and to maintain in crops thereafter the following percentages of irrigable land as tentatively or finally classified:

| Size of farm unit in irrigable acres | Percentage of land classified tentatively or finally as irrigable to be developed by end of each year. (Period will begin with year of purchase if contract is executed and water is available on or before May 1 of that year; otherwise period will begin with the next calendar year.) | | | |
|---|---|---|---|---|
| | 3d year | 4th year | 5th year | 6th year |
| 10 to 40 | 75 | ------ | ------ | ------ |
| 41 to 60 | 50 | 75 | ------ | ------ |
| 61 to 80 | 50 | 65 | 75 | ------ |
| 81 to 100 | 40 | 60 | 65 | 75 |
| 101 to 160 | 35 | 50 | 65 | 75 |

(d) *Residence requirements.* A major objective of the settlement program for the Columbia Basin Project is to assist and encourage the permanent settlement of farm families. In keeping with this objective, each purchaser will be required to do the following with respect to residence:

(1) Within one year from the date of his contract or by March 1 of the year water is first declared available to the irrigation block in which the farm unit is located, whichever is later, he must initiate residence by actually moving onto the unit, such residence to be maintained by living thereon for not less than 12 months within an 18-month period following the initial date of residence.

(2) Before receiving title to the unit under the land sale contract, to establish a permanent and habitable dwelling on the unit. The time for compliance with the initiation of residence may be extended by the Project Manager for periods of as long as six months, upon his determination that an extension is necessary to avoid undue hardship to the purchaser and that it will not be detrimental to the orderly development of the irrigation block. The latest permissible date for initiating residence, however, will not be extended for more than one year in addition to the one-year period specified above.

(e) *Speculation and landholding limitations.* Land sale contracts and deeds covering farm units offered by this announcement will include provisions governing (1) maximum permissible sizes of holdings of irrigable lands; (2) continued conformance of land to the area and boundaries of the farm unit plat for the block; (3) prices at which land can be resold during a period of five years following the date on which water is made available to the irrigation block; (4) disposal of land should it become excess at any time; and (5) limitations as to total area that may be operated on the Project, whether as lessee or as owner or both.

(f) *Possession.* The purchaser may take possession of the lands being purchased when he has complied with the requirements described in section 15 and the land sale contract has been executed by the Project Manager for the United States, except that if a farm unit is under lease when sold possession may not be taken until the end of the period for which the unit is leased. Such leases occur infrequently and are of not more than one year's duration.

(g) *Sales, assignments, leases.* Each purchaser shall be required to agree that he, his heirs and assigns, will not, except with the approval of the Project Manager, sell, assign, lease, or otherwise dispose of, or contract to sell, assign, lease, or otherwise dispose of, his land during a period ending five years from the date of his purchase contract.

(h) *Copies of contract form.* The terms listed above and all other standard contract provisions are contained in the land sale contract form, copies of which may be obtained by writing to the Bureau of Reclamation, Ephrata, Washington.

IRRIGATION CHARGES

SEC. 17. *Water rental charges.* In Irrigation Block 3, some construction activities will be continuing and the system will be tested during the irrigation season of 1958. However, it is expected that water will be furnished on a temporary rental basis to those desiring it. The terms of payment, which will be at a fixed rate per acre-foot of water used, will be announced by the Regional Director before the beginning of the irrigation season.

SEC. 18. *Development period charges.* Pursuant to the provisions of the repayment contract of October 9, 1945, between the United States and the South Columbia Basin Irrigation District in the Columbia Basin Project, the Secretary of the Interior will announce a development period of ten years during which time payment of construction charge installments will not be required. This period probably will commence with the calendar year 1959 for Irrigation Block 3.

During the development period, water rental charges will average an estimated $6 per year for each irrigable acre as tentatively or finally classified. This figure is preliminary and subject to change because all the data needed to fix the charges are not available nor can they be obtained now. In any event, there will be a minimum charge per farm unit each year whether or not water is used. A notice establishing the details of the plan to be followed and announcing charges and governing provisions for the first year of the development period will be issued prior to January 1 of that year by the Regional Director, who has the responsibility for fixing charges.

The present plans of the Regional Director are (a) to vary the minimum charge according to the anticipated relative repayment ability of the various land classes; (b) to provide for a small minimum charge for the first year and to increase it each year thereafter so that the charge for the tenth year will be approximately equal to the combined construction and operation and maintenance charge for the following year; and (c) to charge for water in excess of the amount furnished for the minimum charge on an acre-foot basis. The minimum charge will entitle each user to a quantity of water, to be specified by the

Regional Director, varying with the water requirement classification of the land and the size of the farm unit.

In addition to the water rental charges, the irrigation district will levy an additional charge to cover administrative costs and probable delinquencies in collections.

SEC. 19. *Construction period repayment charges*—(a) *Operation and maintenance charges.* After the development period has ended, water users will pay a charge for operation and maintenance of the project irrigation system which will be uniform for the irrigation blocks throughout the Project. These charges may or may not be graduated among land classes. Assessment procedure will be left for the Irrigation District Board of Directors to determine, but, in any case, there will be an annual minimum charge per acre. In order to encourage careful use of water, this annual minimum charge will entitle the water user to one-half acre-foot of water per acre less than the amount of water normally required. The normal requirements for the various classes of land will be determined and announced as provided in the repayment contract with the irrigation districts. Water in excess of the quantity covered by the minimum charge will be paid for on an acre-foot basis in accordance with an ascending, graduated scale.

(b) *Construction charges.* The contract between the United States and the South Columbia Basin Irrigation District requires the payment of construction charges for the project irrigation system during the forty years following the development period. The average construction charge per irrigable acre for the entire project will be $2.12 per year. Thus, the total construction charge payment will average $85 per irrigable acre, but that amount was predicated on an estimated total direct irrigation cost of not to exceed $280,782,180, as indicated by Article 6 of the repayment contract, an amount that it now appears is likely to be exceeded. The contract further provides that construction charges shall be graduated according to the relative repayment ability of the land; consequently, the charge per irrigable acre will be larger for the better lands than for the poorer lands. This allocation of construction charges by classes of land will be made as soon as practicable.

FRED G. AANDAHL,
*Assistant Secretary of the Interior.*

[F. R. Doc. 58-4928; Filed, June 27, 1958; 8:47 a. m.]

## FEDERAL COMMUNICATIONS COMMISSION

[Docket Nos. 11982—11984; FCC 58M-675]

ENTERPRISE BROADCASTING CO.

ORDER REOPENING RECORD AND SCHEDULING FURTHER PRE-HEARING CONFERENCE

In reapplication of Enterprise Broadcasting Co., Fresno, California, Docket No. 11982, File No. BP-10319; Air Waves, Incorporated (KONG), Visalia, California, Docket No. 11983, File No. BP-10432; Radio Dinuba Company (KRDU), Dinuba, California, Docket No. 11984, File No. BP-10735; for construction permits.

The Hearing Examiner having under consideration in the above-entitled matter (1) a memorandum opinion and order (FCC 58-580 59628) released June 19, 1958 which, among other things, added an issue to this proceeding, and (2) oral requests from the parties that a prehearing conference be held to determine the future course of the proceeding; and

It appearing that the terms of the Memorandum Opinion and Order can only be carried out by further hearing procedures,

*It is ordered*, This 24th day of June 1958, that the record in the above-entitled matter is reopened and that a further prehearing conference in this matter will be held commencing at 9:00 a. m. on June 30, 1958, in the Commission's offices in Washington, D. C.

Released: June 24, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4947; Filed, June 27, 1958; 8:51 a. m.]

[Docket No. 12031; FCC 58M-677]

BIRCH BAY BROADCASTING CO.

ORDER CONTINUING HEARING

In re application of George A. Wilson & L. N. Ostrander d/b as Birch Bay Broadcasting Company, Blaine, Washington, Docket No. 12031, File No. BP-10848; for construction permit.

By agreement of the parties: *It is ordered*, This 24th day of June 1958, that the exchange of exhibits in the above-entitled case is continued from June 25 to June 30, 1958;

*It is further ordered*, That the prehearing conference presently scheduled for July 1, 1958, is continued to July 9, 1958; and

*It is further ordered*, That the hearing presently scheduled to begin on July 10, 1958, is hereby continued to July 17, 1958, in the offices of the Commission, Washington, D. C.

Released: June 25, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4948; Filed, June 27, 1958; 8:51 a. m.]

[Docket Nos. 12310-12312; FCC 58M-668]

ENTERTAINMENT SERVICE, INC., ET AL.

ORDER CONTINUING FURTHER PRE-HEARING CONFERENCE AND HEARING

In re applications of Entertainment Service, Inc., Solvay, New York, Docket No. 12310, File No. BP-10988; Joseph A. Marturano and Philip S. Marturano d/b as Rome Community Broadcasting Company, Rome, New York, Docket No. 12311, File No. BP-11262; James A. McKechnie, North Syracuse, New York, Docket No. 12312, File No. BP-11329; for construction permits.

The Hearing Examiner having under consideration a motion filed on June 20, 1958, by counsel for James A. McKechnie, one of the applicants, requesting that the schedule of dates for exchange of direct affirmative case, further prehearing conference, and commencement of hearing previously fixed be extended; and,

It appearing that counsel for the other parties, including the Broadcast Bureau, have informally agreed to the requested changes, and good cause has also been shown for the grant of the motion;

*It is ordered*, This 20th day of June 1958, that the motion be and the same is hereby granted; and, accordingly, the date for exchange of direct affirmative case is extended to July 3, 1958, the further prehearing conference is continued to July 14, 1958, and commencement of the hearing is continued to July 22, 1958, at 10 o'clock a. m., in Washington, D. C.

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4949; Filed, June 27, 1958; 8:51 a. m.]

[Docket No. 12375; FCC 58M-674]

JOSEPH ELDRIDGE

ORDER CONTINUING HEARING

In the matter of Joseph Eldridge, Main Street, Buzzards Bay, Massachusetts, order to show cause why there should not be revoked the License for Radio Station WC-9954 aboard the vessel "Striper".

The Hearing Examiner having under consideration a motion to continue proceedings, filed on June 18, 1958, by the Chief, Safety and Special Radio Services Bureau;

It appearing that respondent was at sea for a considerable period of time prior to May 30, 1958, and has disclaimed actual receipt of the hearing order until that time; and

It further appearing that the Bureau has dispatched a letter to the respondent requesting certain pertinent information in connection with the order to show cause; and

It further appearing that under the circumstances the continuance is justified;

*It is ordered*, This 24th day of June 1958, that the hearing now scheduled to commence on June 26, 1958, is continued indefinitely.

Released: June 24, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4950; Filed, June 27, 1958; 8:51 a. m.]

[Docket No. 12487; FCC 58M-669]

WILA, INC. (WILA)

ORDER SCHEDULING HEARING

In re application of WILA, Incorporated (WILA), Danville, Virginia, Docket No. 12487, File No. BMP-7592, for modification of construction permit.

*It is ordered*, This 19th day of June 1958, that H. Gifford Irion will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on September 30, 1958, in Washington, D. C.

Released: June 24, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4951; Filed, June 27, 1958; 8:51 a. m.]

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[Docket Nos. 12488, 12489; FCC 58M-666]

YOUNG PEOPLE'S CHURCH OF THE AIR, INC., AND WJMJ BROADCASTING CORP.

ORDER SCHEDULING HEARING

In re applications of The Young People's Church of the Air, Inc., Philadelphia, Pennsylvania, Docket No. 12488, File No. BPH-2394; WJMJ Broadcasting Corporation, Philadelphia, Pennsylvania, Docket No. 12489, File No. BPH-2423; for construction permits.

*It is ordered*, This 19th day of June 1958, that Annie Neal Huntting will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on October 2, 1958, in Washington, D. C.

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4952; Filed, June 27, 1958; 8:51 a. m.]

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[Docket Nos. 12488, 12489; FCC 58M-678]

YOUNG PEOPLE'S CHURCH OF THE AIR, INC., AND WJMJ BROADCASTING CO.

ORDER SCHEDULING PRE-HEARING CONFERENCE

In re applications of The Young People's Church of the Air, Inc., Philadelphia, Pennsylvania, Docket No. 12488, File No. BPH-2394; WJMJ Broadcasting Corporation, Philadelphia, Pennsylvania, Docket No. 12489, File No. BPH-2423; for construction permits.

The Hearing Examiner having under consideration the above-entitled proceeding;

*It is ordered*, This 24th day of June 1958, that all parties, or their attorneys, are directed to appear for a prehearing conference pursuant to the provisions of § 1.111 of the Commission's rules, at the Commission's offices in Washington, D. C., at 10:00 a. m., July 17, 1958.

Released: June 25, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4953; Filed, June 27, 1958; 8:51 a. m.]

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[Docket No. 12493, 12494; FCC 58M-667]

VETERANS BROADCASTING CO. INC., AND CAPITAL CITIES TELEVISION CORP.

ORDER SCHEDULING HEARING

In re applications of Veterans Broadcasting Company, Inc., Vail Mills, New York, Docket No. 12493, File No. BPCT-2397; Capital Cities Television Corporation, Vail Mills, New York, Docket No. 12494, File No. BPCT-2435; for construction permits for new television broadcast stations (Channel 10).

*It is ordered*, This 19th day of June 1958, that J. D. Bond will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on September 30, 1958, in Washington, D. C.

Released: June 23, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
*Secretary.*

[F. R. Doc. 58-4954; Filed, June 27, 1958; 8:51 a. m.]

## FEDERAL POWER COMMISSION

[Project No. 1975]

IDAHO POWER CO.

NOTICE OF APPLICATION FOR AMENDMENT OF LICENSE

JUNE 24, 1958.

Public notice is hereby given that application has been filed under the Federal Power Act (16 U. S. C. 791a-825r) by Idaho Power Company, of Boise, Idaho, licensee for Project No. 1975 situated on Snake River for amendment of its license for the project. Licensee requests that the license be amended to include in the project a 138-kilovolt transmission line, now constructed, extending from the Bliss Plant to the King Substation in Section 11, T. 7 S., R. 13 E., Boise Meridian.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure of the Commission (18 CFR 1.8 or 1.10). The last day upon which protests or petitions may be filed is July 31, 1958. The application is on file with the Commission for public inspection.

[SEAL] MICHAEL J. FARRELL,
*Acting Secretary.*

[F. R. Doc. 58-4940; Filed, June 27, 1958; 8:50 a. m.]

[Project No. 1971]

IDAHO POWER CO.

NOTICE OF APPLICATION FOR AMENDMENT OF LICENSE

JUNE 25, 1958.

Public notice is hereby given that application has been filed under the Federal Power Act (16 U. S. C. 791a-825r) by Idaho Power Company, Boise, Idaho, licensee for Project No. 1971 for amendment of its license for the project to include the following proposed transmission lines:

(a) A 230 kv double circuit steel tower line about 100 miles in length extending from the Brownlee Hydroelectric Plant to Boise Bench substation near Boise, Idaho.

(b) A 230 kv single circuit wood tower line about 43 miles in length extending from Brownlee Hydroelectric Plant to Quartz Substation near Baker, Oregon.

(c) A 230 kv double circuit steel tower line extending from the Oxbow power plant approximately 20.5 miles in a northerly direction to the Pallette Junction in the Imnaha River valley, thence easterly approximately 8 miles to the proposed Hells Canyon Hydroelectric development.

(d) A 230 kv single circuit transmission line extending approximately 45.2 miles in a northerly direction from Pallette Junction in Wallowa County, Oregon, to a point on the Idaho bank of the Snake River approximately one mile upstream from the confluence of the Imnaha and Snake Rivers.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure of the Commission (18 CFR 1.8 or 1.10). The last day upon which protests or petitions may be filed is July 25, 1958. The application is on file with the Commission for public inspection.

[SEAL] MICHAEL J. FARRELL,
*Acting Secretary.*

[F. R. Doc. 58-4941; Filed, June 27, 1958; 8:50 a. m.]

## GENERAL SERVICES ADMINISTRATION

[Delegation of Authority No. 345]

REGIONAL COMMISSIONER, REGION 3

ADDITION TO DELEGATION OF AUTHORITY

In addition and as an extension to the authorities contained in Delegation of Authority No. 328, dated February 17, 1958, the Regional Commissioner, Region 3, is authorized to exercise the following specific authority:

To execute Declarations of Taking to be filed in the pending Condemnation Proceeding for the acquisition of the site for the Washington International Airport at Chantilly, Virginia.

This authority may not be redelegated.

Dated: June 23, 1958.

FRANKLIN FLOETE,
*Administrator.*

[F. R. Doc. 58-4929; Filed, June 27, 1958; 8:47 a. m.]

## HOUSING AND HOME FINANCE AGENCY

### Office of the Administrator

URBAN RENEWAL COMMISSIONER AND HHFA REGIONAL ADMINISTRATORS

AMENDMENT OF DELEGATION OF AUTHORITY WITH RESPECT TO SLUM CLEARANCE AND URBAN RENEWAL PROGRAM; DEMONSTRATION GRANT PROGRAM; AND URBAN PLANNING GRANT PROGRAM

A. The delegation of authority with respect to the slum clearance and urban renewal program, demonstration and urban planning grant programs, effective as of December 23, 1954 (20 F. R. 428–429, Jan. 19, 1955), as amended (20 F. R. 4275, June 17, 1955; 21 F. R. 1468, March 7, 1956; 21 F. R. 3038, May 5, 1956; 21 F. R. 5385, July 18, 1956; 21 F. R. 5471, July 20, 1956; 22 F. R. 2887, April 24, 1957; 22 F. R. 4105, June 11, 1957; 23 F. R. 1202, Feb. 26, 1958; and 23 F. R. 1611–1612, March 6, 1958), is hereby further amended in the following respects:

1. In subparagraph 1 (d) (2), by deleting existing subparagraph 1 (d) (2) and substituting in lieu thereof the following: "Approve applications for authorization to proceed with survey and planning activities with other than Federal funds;".

2. In subparagraph 5 (b), by deleting existing subparagraph 5 (b) and substituting in lieu thereof the following: "Execute or issue authorizations to proceed with other than Federal funds;".

3. In paragraphs 1, 2, 5, and 6, by deleting after "Regional Administrator", the first time it appears in each such paragraph, the phrase "(except the Regional Administrator, Region VII (Puerto Rico))".

B. The delegation of authority to the Regional Administrator, Region VII (Puerto Rico), with respect to the slum clearance and urban renewal program, published at 23 F. R. 1611, March 6, 1958, is hereby revoked.

Effective as of the 28th day of June 1958.

ALBERT M. COLE,
*Housing and Home Finance Administrator.*

[F. R. Doc. 58–4936; Filed, June 27, 1958; 8:49 a. m.]

## PANAMA CANAL

PROCLAMATION FOR OBSERVANCE OF CENTENIAL OF BIRTH OF GEORGE WASHINGTON GOETHALS

Whereas June 29, 1958, marks the 100th anniversary of the birth in Brooklyn, New York, of Major General George Washington Goethals; and

Whereas General Goethals gave more than 43 years of distinguished public service to his country as a soldier, engineer and civilian administrator; and

Whereas General Goethals was the guiding genius behind the construction of the Panama Canal, one of the greatest engineering feats of all time and a waterway which today holds the key to the continuance of the rapid industrial gains of the whole Hemisphere; and

Whereas the present-day Canal organization bears the imprint of his administrative genius, having been formed over 50 years ago into a compact, loyal organization of men and women of many nationalities, languages, and abilities to build the Canal and upon completion of the task having been transformed without interruption into a smooth and efficient operating force which has performed its duties for 44 years in a highly successful manner; and

Whereas on January 29, 1914, President Woodrow Wilson named General Goethals the first Governor of the Panama Canal Zone;

Now, therefore, I, W. E. Potter, Governor of the Canal Zone, do hereby proclaim Sunday, June 29, 1958, a day to be observed as the Centennial of the birth of George Washington Goethals; and urge all residents of the Canal Zone to join in this observance with the full realization of the great contributions to our nation's welfare by General Goethals; and do call upon public and private organizations in the Canal Zone to take appropriate recognition of this centennial of the birth of the former Zonian widely known, and remembered, as "The Colonel."

In testimony whereof I have hereunto set my hand and caused the seal of the Canal Zone to be affixed at Balboa Heights, Canal Zone, this 20th day of June 1958.

[SEAL] W. E. POTTER,
*Governor.*

By the Governor:

F. G. DUNSMOOR,
*Acting Executive Secretary.*

[F. R. Doc. 58–5006; Filed, June 27, 1958; 10:34 a. m.]

## INTERSTATE COMMERCE COMMISSION

FOURTH SECTION APPLICATIONS FOR RELIEF

JUNE 25, 1958.

Protests to the granting of an application must be prepared in accordance with Rule 40 of the general rules of practice (49 CFR 1.40) and filed within 15 days from the date of publication of this notice in the FEDERAL REGISTER.

LONG-AND-SHORT HAUL

FSA No. 34773: *Soda ash—Saltville, Va., to Charleston and Belle, W. Va., groups.* Filed by O. E. Schultz, Agent (ER No. 2447), for interested rail carriers. Rates on soda ash, in bulk, carloads, as described in the application from Saltville, Va., to Belle, Charleston, Dock, Elk, Institute, Nitro, South Charleston, and Ruffner, W. Va.

Grounds for relief: Market competition with Barberton, Ohio.

Tariff: Supplement 245 to Agent R. B. LeGrande's tariff I. C. C. 253.

FSA No. 34774: *Substituted service—Rail for motor, C. R. I. & P. R. R. Co.* Filed by Middlewest Motor Freight Bureau, Agent (No. 109), for interested carriers. Rates on property loaded in truckload and less-truckload quantities in highway trailers and transported on railroad flat cars in substituted rail service between Burr Oak, Ill., and Inver Grove, Minn., on the one hand, and Armourdale, Kans., Council Bluffs, and Des Moines, Iowa, on the other, on traffic originating at or destined to points on motor carriers beyond the named points.

Grounds for relief: Motor truck competition.

Tariff: Supplement 78 to Middlewest Motor Freight Bureau, Agent, tariff MF–I. C. C. 223.

FSA No. 34775: *Phosphate rock—Florida mines to southern points.* Filed by O. W. South, Jr., Agent (SFA No. A3685), for interested rail carriers. Rates on phosphate rock, carloads, as described in the application from Bartow, Fla., and other Florida mines to specified points in North Carolina and Virginia.

Grounds for relief: Short-line distance formula.

Tariff: Supplement 97 to Southern Freight Association tariff I. C. C. 1514.

FSA No. 34776: *Fine coal—Mines on Southern Railway to Savannah, Ga.* Filed by Southern Railway Company (No. 134–A), for itself and other interested rail carriers. Rates on fine coal, carloads from mines in Alabama, Kentucky, Tennessee, and Virginia on the Southern Railway Company and its short-line connections to Savannah, Ga., on the Southern Railway.

Grounds for relief: Natural gas competition.

Tariffs: Supplement 48 to Southern Railway Company I. C. C. A–11166. Supplement 45 to Southern Railway Company I. C. C. A–11352.

FSA No. 34777: *Anthracite coal and briquettes to Harlem River, N. Y., area.* Filed by The Erie Railroad Company, Agent (No. 4), for interested rail carriers. Rates on anthracite coal and anthracite briquettes, carloads from mines on the Erie Railroad and its short-line connection in Pennsylvania to Harlem River, N. Y., and five other points in New York in the Harlem Area on the N. Y. N. H. & H. Railroad.

Grounds for relief: Market competition with other coal producing points at the considered destinations.

Tariff: Supplement 20 to Erie Railroad Company tariff I. C. C. D–1493.

FSA No. 34778: *Phosphate rock—Florida mines to Port Maitland, Ont.* Filed by O. W. South, Jr., Agent (SFA No. A3684), for interested rail carriers. Rates on crude phosphate rock, carloads from specified points in Florida to Port Maitland, Ont., Canada.

Grounds for relief: Rail-water competition.

Tariff: Supplement 97 to Southern Freight Association, Agent, tariff I. C. C. No. 1514.

FSA No. 34779: *T. O. F. C. service—Class rates from and to points on the Pennsylvania Railroad in official territory.* Filed by The Pennsylvania Railroad Company, Agent (No. TT–8), for interested rail carriers. Rates on property, moving on class rates, loaded in trailers and transported on railroad flat cars between specified points in New Jersey and Pennsylvania, on the one

hand, and specified points in Indiana, Michigan, and Ohio, on the other.

Grounds for relief: Motor truck competition.

Tariffs: Supplement 3 to Pennsylvania Railroad Company's tariff I. C. C. 3579. Supplement 10 to Trunk Line Territory Tariff Bureau tariff I. C. C. A–1109.

FSA No. 34780: *Liquefied petroleum gas between points in southern territory.* Filed by O. W. South, Jr., Agent (SFA No. A3686), for interested rail carriers. Rates on liquefied petroleum gas, tank-car loads between points in southern territory, Ohio River crossings, and border points.

Grounds for relief: Short-line distance formula, grouping, and special rate treatment for relief lines.

FSA No. 34781: *Liquefied petroleum gas—Southwestern points to the south.* Filed by Southwestern Freight Bureau, Agent (SWFB No. B–7320), for interested rail carriers. Rates on liquefied petroleum gas, tank-car loads from points in southwestern territory described in the application to points in southern territory described in the application.

Grounds for relief: Competition with producers in the New Orleans-Baton Rouge, La., group to points in southern territory.

By the Commission.

[SEAL] HAROLD D. McCOY, *Secretary.*

[F. R. Doc. 58-4938; Filed, June 27, 1958; 8:49 a. m.]

## SECURITIES AND EXCHANGE COMMISSION

[File No. 70-3711]

MARIE L. HARRISON

NOTICE OF APPLICATION FOR APPROVAL OF SECURITY ACQUISITION

JUNE 20, 1958.

Notice is hereby given that Marie L. Harrison of Villanova, Pennsylvania, has filed an application pursuant to sections 9 (a) (2) and 10 of the Public Utility Holding Company Act of 1935 ("act"), seeking approval of the following transaction:

On September 27, 1956, the applicant, being then the owner of 1,700 shares of common stock of Chesapeake Utilities Corporation ("Chesapeake"), purchased 500 additional shares, raising her aggregate holdings above 5 percent of the voting stock of said company. Chesapeake is a public-utility holding company with three substantially wholly-owned gas utility subsidiaries, The Dover Gas Company, Sussex Gas Company and Citizens Gas Corporation. At the time of such acquisition Chesapeake was exempt as a holding company pursuant to Rule 9 promulgated under the act. The acquisition by applicant of over 5 percent of the voting stock of Chesapeake made her a direct affiliate of Chesapeake and an indirect affiliate of said subsidiaries, as defined in section 2 (a) (11) (A) of the act, and an order of approval of such acquisition, pursuant to sections 9 (a) (2) and 10 of the act was required, notwithstanding the fact that Chesapeake is exempt as a holding company.

Applicant requests approval of the aforesaid transaction, whereby she became an affiliate of Chesapeake, stating that the Chesapeake system is an integrated gas utility system, and that her acquisition of the equity securities of Chesapeake increases the investment therein of the management group of which she is a member.

Applicant states that the fees and expenses incurred in connection herewith have been minimal.

Notice is further given that any interested person, may, not later than July 7, 1958, at 5:30 p. m., request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request, and the issues of fact or law, if any, raised by said application which he desires to controvert; or he may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, Washington 25, D. C. At any time after said date the application, as filed or as amended, may be granted as provided in Rule 23 of the rules and regulations promulgated under the act, or the Commission may grant exemption from its rules as provided in Rules 20 (a) and 100, or take such other action as it may deem appropriate.

By the Commission.

[SEAL] ORVAL L. DuBOIS, *Secretary.*

[F. R. Doc. 58-4930; Filed, June 27, 1958; 8:47 a. m.]

[File No. 812-1154]

FIDUCIARY MUTUAL INVESTING CO., INC.

NOTICE OF FILING FOR ORDER PERMITTING REDUCED PUBLIC OFFERING PRICES ON PURCHASES OF COMPANY SHARES BY TAX-EXEMPT ORGANIZATIONS

JUNE 20, 1958.

Notice is hereby given that Fiduciary Mutual Investing Company, Inc. ("Fund"), a registered open-end diversified investment company, has filed an amended application pursuant to section 6 (c) of the Investment Company Act of 1940 ("act") for an order of the Commission exempting from the provisions of section 22 (d) of the act the offering of shares of the Fund to certain tax-exempt organizations at a reduced sales load.

The regular public offering price of the shares of the fund is equal to their net asset value plus a sales charge of approximately the following percentages of the offering prices:

| Amount | Sales commission (percent) |
|---|---|
| Up to $10,000 | 7½ |
| $10,000 to $25,000 | 6¼ |
| $25,000 to $50,000 | 5 |
| $50,000 to $100,000 | 3¾ |
| Over $100,000 | 2½ |

The Fund desires to accept subscriptions at a reduced sales load from charitable, religious, educational and similar organizations exempt from taxation under section 501 (c) (3) of the Internal Revenue Code and employees' trusts exempt from taxation under section 401 of the Internal Revenue Code, by computing the sales charge upon each additional purchase by such groups based on the quantity discount applicable to the amount then being purchased plus the amount paid for shares previously purchased less the net asset value of shares redeemed.

Section 22 (d) of the act, with certain exceptions not pertinent here, prohibits registered investment companies from selling their redeemable securities to any person, other than a dealer or principal underwriter, at a price less than the current public offering price described in the prospectus. The offering of shares of the company to purchasers exempt from sections 501 (c) (3) and 401 of the Internal Revenue Code on the basis herein proposed, may involve an offering of its shares below the normal offering price, in contravention of the provisions of section 22 (d) of the act. Accordingly, the Fund has filed the instant application for an order of the Commission exempting the offering of Fund shares to the above-mentioned organizations from said provisions of the act.

Section 6 (c) of the act authorizes the Commission, by order upon application, to exempt, conditionally or unconditionally, any transaction from any provisions of the act or of any rule or regulation thereunder, if and to the extent that the Commission finds that such exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the act.

The Fund states that such an exemption would not affect the net asset value received by the Fund for its shares, and would appear appropriate in that charitable, religious, educational and other non-profit organizations are in common acceptance favored in their relations and transactions with others and thus enjoy tax exemptions and usually receive special treatment in their trade transactions. The Fund also states that such an exemption would also appear appropriate in view of the purposes and objectives of employees' trusts, which also receive tax exemptions, where created or organized in the United States and forming part of a stock bonus, pension, or profit sharing plan of an employer for the exclusive benefit of his employees or their beneficiaries.

For a more detailed statement of the matters of fact and law asserted, all interested persons are referred to said application which is on file at the office of the Commission in Washington, D. C.

Notice is further given that any interested person may, not later than July 7, 1958, at 5:30 p. m., submit to the Commission in writing any facts bearing upon the desirability of a hearing on the matter and may request that a hearing be held, such request stating the nature of his interest and the reasons for such request and the issues, if any, of fact or law proposed to be controverted or he

may request that he be notified if the Commission should order a hearing thereon. Any such communication or request should be addressed: Secretary, Securities and Exchange Commission, Washington 25, D. C. At any time after said date, the application may be granted as provided in Rule N–5 of the rules and regulations promulgated under the act.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 58–4931; Filed, June 27, 1958; 8:48 a. m.]

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[File Nos. 812–1161, 812–1162]

COLONIAL FUND, INC., AND BOND INVESTMENT TRUST OF AMERICA

NOTICE OF FILING OF APPLICATIONS FOR EXEMPTIONS OF PURCHASES OF SECURITIES DURING EXISTENCE OF UNDERWRITING SYNDICATE

JUNE 23, 1958.

In the matter of the Colonial Fund, Inc., File No. 812–1161; the Bond Investment Trust of America, File No. 812–1162.

Notice is hereby given that The Colonial Fund, Inc. ("Colonial") and The Bond Investment Trust of America ("Bond"), each registered under the Investment Company Act of 1940 ("act") as an open-end diversified management investment company, have filed separate applications pursuant to section 10 (f) of the act for an order exempting from the provisions thereof the proposed purchase by Colonial and Bond of not to exceed $400,000 and $150,000 principal amount, respectively, of the __ percent Secured Bonds (Eleventh Series) due 1978 of the High Authority of the European Coal and Steel Community ("Authority").

Authority is a legal entity established by Treaty of April 18, 1951, among Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands. By the Treaty, which is to remain in effect for 50 years and which entered into force on July 23, 1952, following ratification by their respective legislatures, the six member countries created a community of supranational character to which they ceded sovereign powers in the coal and steel sectors of their economies. On June 5, 1958, Authority filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933 covering $25,000,000 principal amount of __ percent Secured Bonds (Eleventh Series) due 1978 which are expected to be publicly offered on or about June 25, 1958 by underwriting groups including The First Boston Corporation. Colonial states that Kidder, Peabody & Co. and Estabrook & Co. may also be among the group of underwriters.

James H. Orr is a director of The First Boston Corporation and Colonial and he is also a trustee of Bond. Stedman Buttrick is a director of Colonial and a partner of Estabrook & Co. Jean B. Webster is a limited partner in Colonial's investment adviser, Colonial Management Associates, and a limited partner of Kidder, Peabody & Co.

Applicants have represented that the proposed purchases were approved by the boards of directors or trustees and have been recommended by their investment advisers, Colonial Management Associates. The purchases are to be made at the public offering price and will be made from any of the underwriters or members of the selling groups except that both Colonial and Bond will not purchase from The First Boston Corporation. Colonial will, in addition, not purchase from Kidder, Peabody & Co. and Estabrook & Co.

If Applicants were to purchase the amounts proposed, such acquisitions would represent 1.6 percent of the total offering to be acquired by Colonial and 0.6 percent to be acquired by Bond and, assuming a price of 100 percent, the purchases would represent an investment of approximately 1 percent and 3.0 percent of the total assets of Colonial and Bond, respectively. The proposed purchases are stated to be consistent with each of Applicants' investment policies as filed with the Commission.

Section 10 (f) of the act provides, among other things, that no registered investment company shall knowingly purchase or otherwise acquire, during the existence of any underwriting or selling syndicate, any security (except a security of which such company is the issuer) a principal underwriter of which is an officer or director of such registered company or is a person of which any such officer or director is an affiliated person. The Commission may exempt a transaction from this prohibition if and to the extent that such exemption is consistent with the protection of investors. By reason of the affiliations as stated above, the proposed purchases are prohibited by the provisions of section 10 (f) unless the Commission finds that the proposed acquisitions of securities are consistent with the protection of investors.

Notice is further given that any interested person may, not later than July 5, 1958, at 5:30 p. m., submit to the Commission in writing any facts bearing upon the desirability of a hearing on the matters and may request that a hearing be held, such request stating the nature of his interest, the reasons for such request and the issues, if any, of fact or law proposed to be controverted, or he may request that he be notified if the Commission should order a hearing thereon. Any such communication or request should be addressed: Secretary, Securities and Exchange Commission, Washington 25, D. C. At any time after said date, the applications may be granted as provided in Rule N–5 of the rules and regulations promulgated under the act.

By the Commission.

[SEAL] NELLYE A. THORSEN, *Assistant Secretary.*

[F. R. Doc. 58–4932; Filed, June 27, 1958; 8:48 a. m.]

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[File No. 1–367]

L. S. STARRETT CO.

NOTICE OF APPLICATION TO WITHDRAW FROM LISTING AND REGISTRATION, AND OF OPPORTUNITY FOR HEARING

JUNE 23, 1958.

In the matter of the L. S. Starrett Company, common stock; File No. 1–367.

The above named issuer, pursuant to section 12 (d) of the Securities Exchange Act of 1934 and Rule X–12D2–1 (b) promulgated thereunder, has made application to withdraw the specified security from listing and registration on the Boston Stock Exchange.

The reasons alleged in the application for withdrawing this security from listing and registration include the following:

The stock is listed on the New York Stock Exchange. No activity therein exists on the Boston Stock Exchange. The issuer desires to save the expenses of the dual listing.

Upon receipt of a request, on or before July 8, 1958, from any interested person for a hearing in regard to terms to be imposed upon the delisting of this security, the Commission will determine whether to set the matter down for hearing. Such request should state briefly the nature of the interest of the person requesting the hearing and the position he proposes to take at the hearing with respect to imposition of terms. In addition, any interested person may submit his views or any additional facts bearing on this application by means of a letter addressed to the Secretary of the Securities and Exchange Commission, Washington 25, D. C. If no one requests a hearing on this matter, this application will be determined by order of the Commission on the basis of the facts stated in the application and other information contained in the official file of the Commission pertaining to the matter.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 58–4933; Filed, June 27, 1958; 8:48 a. m.]

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## OFFICE OF DEFENSE MOBILIZATION

OSCAR F. RENZ

APPOINTEE'S STATEMENT OF CHANGES IN BUSINESS INTERESTS

The following statement lists the names of concerns required by subsection 710 (b) (6) of the Defense Production Act of 1950, as amended.

Sold all stock of Reardon Company.

Sold all stock of General Contract Corporation.

Closed out account with Beaumont Savings and Loan Association.

Closed out account with Public Service Savings and Loan Association.

This amends statement previously published in the FEDERAL REGISTER January 3, 1958 (23 F. R. 79).

Dated: June 11, 1958.

OSCAR F. RENZ.

[F. R. Doc. 58–4937; Filed, June 27, 1958; 8:49 a. m.]

PART II

# FEDERAL REGISTER

VOLUME 23 NUMBER 127

Washington, Saturday, June 28, 1958

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

# Miscellaneous Amendments Respecting Dangerous Cargoes

This Part II of the FEDERAL REGISTER issue dated June 28, 1958, contains miscellaneous amendments respecting dangerous cargoes, issued by the United States Coast Guard.

# TITLE 46—SHIPPING

## Chapter I—Coast Guard, Department of the Treasury

[CGFR 58-9]

### Miscellaneous Amendments Respecting Dangerous Cargoes

Notices regarding proposed changes in the navigation and vessel inspection regulations were published in the Federal Register dated February 12, 1958 (23 F. R. 905–910), and March 1, 1958 (23 F. R. 1268–1270). Pursuant to these notices a public hearing was held on March 18, 1958, by the Merchant Marine Council at Washington, D. C.

This document is the fourth of a series covering the regulations and actions considered at this public hearing and annual session of the Merchant Marine Council and contains the final actions taken with respect to Items XIV, XV, and XVI of the Agenda. The first document, identified as CGFR 58-8 (23 F. R. 2604), contained miscellaneous amendments to inspection requirements to implement the act of May 10, 1956, as amended (46 U. S. C. 390–390g), which were based on Item III of the Agenda. The second document, identified as CGFR 58-17 (23 F. R. 3376-3384), contained the requirements governing private aids to navigation on the outer Continental Shelf and waters under the jurisdiction of the United States, which were based on Item I of the Agenda. The third document, identified as CGFR 58-18 (23 F. R. 3347, 3348), contained new requirements regarding radar observers and miscellaneous changes respecting renewal of merchant mariner's licenses, which were based on Item IV of the Agenda.

All the comments, views, and data submitted in connection with the items considered by the Merchant Marine Council at this public hearing have been very helpful to the Coast Guard and are very much appreciated. On the basis of the information received, certain proposed regulations were revised. The following items considered at the public hearing held March 18, 1958, as revised, are adopted and included in this document:

Item XIV—Detailed Regulations Governing the Transportation of Military Explosives on Board Vessels (46 CFR 146.29-1 to 146.29-100).

Item XV—Dangerous Cargo Regulations; Miscellaneous Amendments (46 CFR 146.02, 146.03, 146.04, 146.05, 146.06, 146.08, 146.09, 146.20, 146.21, 146.22, 146.23, 146.24, 146.25, 146.27, 147.05).

Item XVI—Inspection and Certification of Cargo and Miscellaneous Vessels Transporting Certain Dangerous Cargoes in Bulk (46 CFR 24.05, 30.01, 31.01, 70.05, 90.05, 91.20, 91.25, 98.01-98.25, 110.05, 146.22, 146.23, 146.24, 175.05).

The proposals in Item XIV of the Agenda, regarding "Detailed Regulations Governing the Transportation of Military Explosives on Board Vessels," were modified on the basis of some of the information received. Changes were made in 46 CFR 146.29-11 (a), subparagraphs (1), (3), 146.29-11 (b), subparagraphs (29), (33), (49), 146.29-11 (c), 146.29-13 (a), 146.29-19 (b), 146.29-25 (c), (2), (n), (o), (p), 146.29-27, 146.29-35 (a), (d), (f), 146.29-41, 146.29-41 (g) (4), (j), 146.29-59, 146.29-63 (g), 146.29-73 (a), 146.29-89 (b), 146.29-97, Chart B, and in 146.29-100, the "Description" of Class I ammunition, the "Handling" of Class IX-C, Class X-B, X-C, X-D, X-E, XI-A, XI-B, XI-C, and XI-D, the "ICC marking" for Class X-C, X-D, X-E, the "ICC Class" for Class XI-C and XI-D, and the "Hazard" respecting Class XI-C.

The regulations in 46 CFR 146.29-1 to 146.29-100, inclusive (Item XIV), are of primary interest to the various agencies within the Department of Defense and these revised regulations have been worked out with the assistance and cooperation of these agencies who have approved or concurred in them. In addition, the Bureau of Explosives and the National Cargo Bureau have registered no objections to the revised regulations. These regulations provide for the shipment of certain new types of military missile fuels and oxidizers. The other changes in these regulations are either of a clarifying nature or editorial in scope to bring them up to date.

The proposals in Item XV of the Agenda, regarding "Miscellaneous Amendments to Dangerous Cargo Regulations," were modified as a result of some of the information received. Changes were made in 46 CFR 146.06-8, 146.06-9 (d), 146.06-19, 146.20-35 (b), and 147.05-100. Numerous comments were received regarding the proposed regulations in 46 CFR 146.07-1 to 146.07-40 concerning "Railroad Vehicles, Highway Vehicles, Vans, or Portable Containers Loaded With Explosives or Other Dangerous Articles and Transported on Board Ocean Vessels." Several informal conferences have been held with interested parties regarding these proposed regulations and on the basis of these conferences and comments the regulations have been rewritten.

The provisions of R. S. 4472, as amended (46 U. S. C. 170), require that the land and water regulations governing the transportation of dangerous articles or substances shall be as nearly parallel as practicable. The provisions in 46 CFR 146.02-18 and 146.02-19 make the Dangerous Cargo Regulations applicable to all shipments of dangerous cargoes by vessels. The Interstate Commerce Commission in Order No. 34 has made changes in the ICC Regulations with respect to the definitions, descriptions, descriptive names, classifications, specifications of containers, packing, marking, labeling, and certifications which are now in effect for land transportation. Various amendments to the Dangerous Cargo Regulations in 46 CFR Part 146 have been included in this document in order that these regulations governing water transportation of certain dangerous cargoes will be as nearly parallel as practicable with the regulations of the Interstate Commerce Commission which govern the land transportation of the same commodities. For those changes in 46 CFR Parts 146 and 147, which involved changes other than shippers' requirements, the proposed amendments were considered at the Merchant Marine Council public hearing held on March 18, 1958.

Since the amendments in this document to 46 CFR Part 146 (other than 146.29-1 to 146.29-100, 146.22-35, 146.23-35, 146.23-50, 146.24-80, and 146.24-85) and 147 are interpretations of law, revised requirements to agree with existing ICC Regulations, relaxations of previous requirements, or are editorial in nature, it is hereby found that compliance with the Administrative Procedure Act respecting effective date requirements of regulations is unnecessary.

The proposals in Item XVI of the Agenda regarding "Inspection and Certification of Cargo and Miscellaneous Vessels Transporting Certain Dangerous Cargoes in Bulk" were modified as a result of information received. The amendments based on Item XVI will transfer current requirements respecting construction and arrangement of tanks and the handling of cargoes in bulk governing the transportation of elemental phosphorus in water, sulfuric acid, hydrochloric acid, liquid chlorine, and anhydrous ammonia from 46 CFR 146.22-35, 146.23-35, 146.23-50, 146.24-80 and 146.24-85 to a new part designated 46 CFR Part 98 in Subchapter I (Cargo and Miscellaneous Vessels), and appropriate cross references are inserted as 46 CFR 31.01-1 (e), 91.20-20 (a) (5), and 91.25-37. The major changes in the proposals deal with the effective date for the inspection and certification of vessels which will be required, as well as to permit tank barges inspected and certificated in accordance with Subchapter D (Tank Vessels) of this chapter to carry the dangerous cargoes specifically noted. Those provisions which require inspection and certification of vessels shall be in effect on and after January 1, 1959, for new construction and on and after January 1, 1960, for existing vessels. Vessels in existence on January 1, 1959, and vessels contracted for prior to January 1, 1959, which may carry in bulk any of these dangerous cargoes shall meet the applicable requirements of Subchapter I (Cargo and Miscellaneous Vessels) or Subchapter D (Tank Vessels) as is reasonable and practicable in the opinion of the Officer in Charge, Marine Inspection, to qualify for certification. In this respect the Officer in Charge, Marine Inspection, may grant departures from specific requirements if in his opinion the circumstances warrant such departures. However, the Officer in Charge, Marine Inspection, in any case shall satisfy himself that the vessel and its equipment are in good condition and satisfactory for the purposes intended.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Orders 120, dated July 31, 1950 (15 F. R. 6521), 167-14, dated November 26, 1954 (19 F. R. 8026), 167-20, dated June 18, 1956 (21 F. R. 4894), and CGFR 56-28, dated July 24, 1956 (21 F. R. 5659), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendments and regulations are prescribed and shall become effective on and after date of publication of this document in the Federal Register, unless otherwise specifically provided in the text of the regulations:

**Subchapter C—Uninspected Vessels**

**PART 24—UNINSPECTED VESSELS**

**SUBPART 24.05—APPLICATION**

Section 24.05–1 is amended by revising Table 24.05–1 to read as follows:

§ 24.05–1 *Vessels subject to the requirements of this subchapter.* (a) * * *

TABLE 24.05–1 (a)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2] [4] or Subchapter T—Small Passenger Vessels [2] [4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2] [5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2] [6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[3] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[3] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[3] | None. |
| Non-self-propelled | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[3] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146,[3] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.

[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

(R. S. 4405, as amended, 4462, as amended, sec. 17, 54 Stat. 166, as amended; 46 U. S. C. 375, 416, 526p)

Subchapter D—Tank Vessels

PART 30—GENERAL PROVISIONS

SUBPART 30.01—ADMINISTRATION

Section 30.01–5 (d) is amended by revising Table 30.01–5 (d) to read as follows:

§ 30.01–5 *Application of regulations—TB/ALL.* * * *

(d) * * *

TABLE 30.01–5 (d)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2 3 4] or Subchapter T—Small Passenger Vessels [2 3 4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2 3] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2 3 4] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire, except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[9] | None. |
| Non-self-propelled | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146,[9] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.

[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

(R. S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U. S. C. 391a, 416. Interprets or applies sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

PART 31—INSPECTION AND CERTIFICATION

SUBPART 31.01—GENERAL

Section 31.01–1 is amended by adding a new paragraph (e), reading as follows:

§ 31.01–1 *Inspections required—TB/ALL.* * * *

(e) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

(R. S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U. S. C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

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**Subchapter H—Passenger Vessels**

PART 70—GENERAL PROVISIONS

SUBPART 70.05—APPLICATION

1. Section 70.05–1 (a) is amended by revising Table 70.05–1 (a) to read as follows:

§ 70.05–1 *Vessels subject to the requirements of this subchapter.* (a) * * *

TABLE 70.05–1 (a)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [2] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [3] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [3 4 5] or Subchapter T—Small Passenger Vessels [3 4 6] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [3 5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [3 5 6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[3] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[3] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[3] | None. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.

[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

TABLE 70.05-1 (a)—Continued

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2 3 4] or Subchapter T—Small Passenger Vessels [2 3 4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2 5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2 3 6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Non-self-propelled... | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[8] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146,[8] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.
[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.
[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.
[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.
[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.
[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.
[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416. Interprets or applies R. S. 4426, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 346, as amended, sec. 2, 54 Stat. 1028, as amended, sec. 3, 68 Stat. 675, sec. 3, 70 Stat. 152, 153; 46 U. S. C. 404, 369, 367, 526p, 1333, 463a, 390b, 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

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## Subchapter I—Cargo and Miscellaneous Vessels

## PART 90—GENERAL PROVISIONS

### SUBPART 90.05—APPLICATION

Section 90.05-1 (a) is amended by revising Table 90.05-1 (a) to read as follows:

§ 90.05-1 *Vessels subject to requirements of this subchapter.* (a) * * *

TABLE 90.05-1 (a)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2 3 4] or Subchapter T—Small Passenger Vessels [2 3 4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2 5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2 3 6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam..... | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.
[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.
[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.
[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.
[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.
[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.
[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).
[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.
[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

TABLE 90.05-1 (a)—Continued

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2] [4] or Subchapter T—Small Passenger Vessels [2] [4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2] [5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2] [6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[8] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[8] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[8] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[8] | None. |
| Non-self-propelled | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[8] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146,[8] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416. Interprets or applies R. S. 4426, as amended, secs. 1, 2, 49 Stat. 1544, as amended, sec. 17, 54 Stat. 166, sec. 2, 54 Stat. 1028, as amended, sec. 3, 70 Stat. 152, 153, sec. 3, 6, Stat. 675; 46 U. S. C. 404, 367, 526p, 463a, 390b, 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

SUBPART 91.20—INITIAL INSPECTION

Section 91.20-20 (a) is amended by adding a new subparagraph (5), reading as follows:

§ 91.20-20 *Specific tests and inspections.* (a) * * *

(5) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see Part 98 of this subchapter.

SUBPART 91.25—INSPECTION FOR CERTIFICATION

Subpart 91.25 is amended by adding a new § 91.25-37 to follow after § 91.25-35, reading as follows:

§ 91.25-37 *Tanks containing dangerous cargoes.* (a) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see Part 98 of this subchapter.

(R. S. 4405, as amended, 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply R. S. 4399, 4400, 4417, 4418, 4421, 4423, 4426-4431, 4433, 4434, 4453, as amended, sec. 14, 29 Stat. 690, secs. 10, 11, 35 Stat. 428, 41 Stat. 305, 49 Stat. 1544, 1935, as amended, sec. 3, 68 Stat. 675; 46 U. S. C. 361, 362, 391, 392, 399, 400, 404-409, 411, 412, 435, 366, 395, 396, 363, 367, 660a, 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

Subchapter I is amended by adding a new Part 98, reading as follows:

Subpart 98.01—Application

Sec.
98.01-1 General.
98.01-5 Effective date.

Subpart 98.05—Elemental Phosphorous in Water in Bulk

98.05-1 General.
98.05-5 Types of cargo tanks.
98.05-10 Venting.
98.05-15 Installation.
98.05-20 Openings in tanks.
98.05-25 Outage.
98.05-30 Cargo discharging.
98.05-35 Cargo temperature.
98.05-40 Heating coils.
98.05-45 Void flooding.
98.05-50 General requirements.
98.05-55 Electrical bonding.
98.05-60 Tests and inspections.

Subpart 98.10—Sulfuric Acid in Bulk

98.10-1 General.
98.10-5 How acid may be carried.
98.10-10 Gravity type cargo tanks.
98.10-15 Pressure-vessel type cargo tanks.
98.10-20 Installation.
98.10-25 Openings in tanks.
98.10-30 Cargo piping.
98.10-35 Outage.
98.10-40 Lining.
98.10-45 General requirements.
98.10-50 Tests and inspections.

Subpart 98.15—Hydrochloric Acid in Bulk

98.15-1 General.
98.15-5 How acid may be carried.
98.15-10 Gravity type cargo tanks.
98.15-15 Pressure-vessel type cargo tanks.
98.15-20 Installation.
98.15-25 Openings in tanks.
98.15-30 Cargo piping.
98.15-35 Outage.
98.15-40 Lining.
98.15-45 General requirements.
98.15-50 Tests and inspections.

Subpart 98.20—Liquid Chlorine in Bulk

Sec.
98.20-1 General.
98.20-5 How liquid chlorine may be carried.
98.20-10 Design and construction of cargo tanks.
98.20-15 Markings.
98.20-20 Installation of cargo tanks.
98.20-25 Cargo tanks on barges.
98.20-30 Valves, fittings, and accessories.
98.20-35 Filling and discharge pipes.
98.20-40 Cargo piping.
98.20-45 Safety relief valves.
98.20-50 Filling density.
98.20-55 Venting.
98.20-60 Filling and discharge operation.
98.20-65 Cargo hose.
98.20-70 Special operating requirements.
98.20-75 Tests and inspections.
98.20-80 Stores on board.

Subpart 98.25—Anhydrous Ammonia in Bulk

98.25-1 General.
98.25-5 How anhydrous ammonia may be carried.
98.25-10 Design and construction of cargo tanks.
98.25-15 Markings.
98.25-20 Installation of cargo tanks.
98.25-25 Cargo tank barges.
98.25-30 Lagging.
98.25-35 Refrigerated systems.
98.25-40 Valves, fittings, and accessories.
98.25-45 Liquid level gaging device.
98.25-50 Filling and discharge pipes.
98.25-55 Cargo piping.
98.25-60 Safety relief valves.
98.25-65 Filling density.
98.25-70 Venting.
98.25-75 Ventilation.
98.25-80 Cargo hose.
98.25-85 Electrical bonding.
98.25-90 Special operating requirements.
98.25-95 Tests and inspections.

AUTHORITY: §§ 98.01-1 to 98.25-95 issued under R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.

SUBPART 98.01—APPLICATION

§ 98.01-1 *General.* (a) The provisions of this part shall apply to all vessels which carry in bulk any of the dangerous cargoes specifically noted in this part.

§ 98.01-5 *Effective date.* (a) The provisions in this part which require inspection and certification of vessels shall be in effect on and after January 1, 1959, for new construction and on and after January 1, 1960, for existing vessels. Vessels in existence on January 1, 1959, and vessels contracted for prior to January 1, 1959, which may carry in bulk any of the dangerous cargoes specifically noted in this part shall meet the applicable requirements of this subchapter or Subchapter D (Tank Vessels) of this chapter, as is reasonable and practicable in the opinion of the Officer in Charge, Marine Inspection, to qualify for certification. In this respect the Officer in Charge, Marine Inspection, may grant departures from specific requirements of this chapter if in his opinion the circumstances warrant such departures. In any case the Officer in Charge, Marine Inspection, shall satisfy himself that the vessel and its equipment are in good condition and satisfactory for the purposes intended.

(b) The other provisions of this part shall be in effect on and after July 1, 1958.

SUBPART 98.05—ELEMENTAL PHOSPHORUS IN WATER IN BULK

§ 98.05-1 *General.* (a) Elemental phosphorus, white or yellow, in water may be carried in bulk only in cargo barges, tank barges, or cargo vessels in accordance with the provisions of this subpart.

(b) Any vessel carrying elemental phosphorus in water in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D (Tank Vessels) of this chapter, as applicable.

§ 98.05-5 *Types of cargo tanks.* (a) Tanks in which the vessel's structure forms a part thereof may be employed, provided void spaces are located surrounding the tanks on the sides and bottom.

(b) Tanks independent of the hull either cylindrical or of rectangular design may be employed. The plating of such tanks shall be not less than 5/16 inch thick.

(c) The tanks shall be designed and tested to a head of 8 feet above the tank top or the highest level the lading may rise, whichever is the greater.

(d) When a water displacement method of discharge is used, pressure-vessel type cargo tanks, designed and tested in accordance with Subchapter F (Marine Engineering) of this chapter shall be employed. Such tanks shall be designed for the maximum pressure to which they may be subjected when water pressure is used to discharge the cargo.

§ 98.05-10 *Venting.* (a) Each cargo tank shall be fitted with an approved pressure-vacuum relief valve set to discharge at a pressure not exceeding 2 pounds per square inch. The discharge therefrom shall lead overboard above the waterline. When pressure vessel type tanks are used, each tank shall be fitted with a relief valve of suitable size.

§ 98.05-15 *Installation.* (a) Adequate clearance shall be provided for the inspection and maintenance of independent cargo tanks, or such tanks shall be made movable.

§ 98.05-20 *Openings in tanks.* (a) Openings in tanks are prohibited below deck except for access openings used for inspection and maintenance of tanks. Manholes or access trunks shall be of not less than 20 inches diameter. Openings shall be fitted with bolted cover plates and gaskets resistant to the attack of phosphorus pent oxide.

§ 98.05-25 *Outage.* (a) Sufficient outage shall be provided to prevent the tanks from being liquid full at any time, but in no case shall the outage be less than 1 percent. When pressure vessel type tanks are used outage need not be provided.

§ 98.05-30 *Cargo discharging.* (a) Pumps shall be employed in the discharge of cargo except when pressure vessel type tanks are used, water displacement method may be employed. The use of compressed air to discharge cargo is prohibited.

§ 98.05-35 *Cargo temperature.* (a) Cargo shall be loaded at a temperature not exceeding 140° F., and then cooled until the water above the cargo has a temperature not exceeding 105° F. prior to the movement of the vessel. Upon presentation of satisfactory proof that procedures followed will provide adequate safety in transportation and handling, the Commandant may authorize movement of the vessel following cooling of the water above the cargo to a temperature not exceeding 115° F.

§ 98.05-40 *Heating coils.* (a) Coils in which steam or hot water is circulated to heat the cargo so that it may be pumped shall be located outside the cargo tanks.

§ 98.05-45 *Void flooding.* (a) A fixed ballast piping system (including a power driven pump of ample capacity), or other means acceptable to the Commandant shall be installed so that any void space surrounding the fixed tanks may be flooded.

§ 98.05-50 *General requirements.* (a) All enclosed compartments containing independent cargo tanks and machinery spaces containing cargo pumps for handling liquid phosphorus shall be provided with effective means of ventilation.

(b) Cargo piping shall be of steel or wrought iron. Flanges and pipe fittings shall be of steel or malleable iron. Valves shall be of steel or bronze.

(c) Cargo lines shall be traced with steam piping and secured thereto by lagging to prevent solidification of cargo during transfer operations.

(d) A water hose shall be connected ready for immediate use and any spillage of phosphorus shall be immediately washed down.

(e) At least two fresh air masks or self-contained oxygen breathing apparatus shall be stowed on board the vessel at all times for use of personnel entering the tanks or adjacent spaces.

(f) Authorization from the Commandant (OPL) shall be obtained to transport lading other than phosphorus in the cargo tanks or to have on board any other cargo when phosphorus is laden in the tanks.

(g) Mechanical ventilation of sufficient capacity to insure a change of air every three minutes shall be provided during the inspection and maintenance of the cargo tanks.

(h) During the time elemental phosphorus is laden in the tanks, the barge shall be under constant surveillance. A towing vessel engaged in transporting such barges shall not leave the barge unattended except when the barge is moored at a pier, wharf, dock or other terminal and then only if such facility is provided with watchman or guard service.

(i) The Interstate Commerce Commission standard "Dangerous" placard shall be displayed in four locations on the barge when elemental phosphorus is laden in the tanks. A placard shall be posted approximately amid ships on each side facing outboard, and a placard shall

be posted at each end of the barge at about the end of the tanks facing outboard. After unloading and before a tank or tanks are cleaned, the placard shall be reversed to show the "Dangerous—Empty" legend.

§ 98.05–55 *Electrical bonding.* (a) Independent cargo tanks shall be electrically grounded to the hull. The barge shall be electrically connected to the shore piping prior to connecting the cargo hose. This electrical connection shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

§ 98.05–60 *Tests and inspections.* (a) Each gravity tank shall be tested before being put into service as prescribed in § 98.05–5 (c).

(b) Tanks shall be retested as prescribed in § 98.05–5 eight years after being placed into service and at each four-year interval thereafter, as well as before being returned to service after extensive repairs.

SUBPART 98.10—SULFURIC ACID IN BULK

§ 98.10–1 *General.* (a) Sulfuric acid or spent sulfuric acid may be carried in bulk only in cargo barges, tank barges, or cargo vessels in accordance with the provisions of this subpart.

(b) Any vessel carrying sulfuric acid or spent sulfuric acid in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D (Tank Vessels) of this chapter, as applicable.

§ 98.10–5 *How acid may be carried.* (a) Sulfuric acid of concentration of 77.5 percent (1.7019 specific gravity) (59.8° Baume) or greater concentrations with or without an inhibitor, provided the corrosive effect on steel measured at 100° F. is not greater than that of 66° Baume commercial sulfuric acid, may be transported in unlined gravity type cargo tanks or unlined pressure-vessel type cargo tanks.

(b) Sulfuric acid of concentration of 65.25 percent (1.559 specific gravity) (52° Baume) or greater concentrations, provided the corrosive effect on steel measured at 100° F. is not greater than that of 52° Baume commercial sulfuric acid, may be transported in unlined pressure-vessel type cargo tanks independent of the vessel's structure.

(c) Sulfuric acid of concentration not to exceed 65.25 percent (1.559 specific gravity) (52° Baume) may be transported in gravity type cargo tanks or pressure-vessel type cargo tanks which are lined with lead or other equally suitable acid-resistant material acceptable to the Commandant.

(d) Sulfuric acid of concentration not to exceed 51 percent (1.408 specific gravity) (42° Baume) and spent sulfuric acid resulting from the use of sulfuric acid in industrial processes may be transported in gravity type cargo tanks which are lined with rubber or other equally suitable acid-resistant material acceptable to the Commandant.

§ 98.10–10 *Gravity type cargo tanks.* (a) Gravity type cargo tanks shall be designed and tested to meet the rules of the American Bureau of Shipping for a head of water at least 8 feet above the tank top or the highest level the lading may rise, whichever is the greater. The plate thickness of any part of the tank shall not be less than $\frac{3}{8}$ inch. Such tanks may form an integral part of the ship's structure, or may be independent of the ship's structure, or form a part thereof.

(b) Gravity type tanks shall be vented to atmosphere. A vent shall be fitted having a cross-sectional area of not less than that of the filling line unless an ullage opening is provided having a cross-sectional area at least equal to that of the filling line. The minimum size of a cargo tank vent shall be not less than $2\frac{1}{2}$ inches. The outlet end of the vent shall terminate above the weather deck, clear of all obstructions and away from any source of flame. The vent shall terminate in a gooseneck bend and shall be fitted with a single flame screen of at least 30 x 30 mesh; or two screens of at least 20 x 20 mesh, not less than 1 inch nor more than $1\frac{1}{2}$ inches apart. The flame screens shall be corrosion-resistant wire. No shut-off valve or frangible disc shall be fitted in the vent lines.

(c) Compressed air shall not be used to discharge cargo from gravity type cargo tanks.

§ 98.10–15 *Pressure-vessel type cargo tanks.* (a) Pressure-vessel type tanks shall be independent of the vessel's structure and shall be designed for the maximum pressure to which they may be subjected when compressed air is used to discharge the cargo, but in no case shall the design pressure be less than 50 pounds per square inch.

(b) Pressure-vessel type cargo tanks shall be designed as Class II or Class III unfired, arc-welded cylindrical pressure vessels, inspected and tested as required by Subchapter F (Marine Engineering) of this chapter.

(c) Tanks designed, inspected, and tested as required by Interstate Commerce Commission Specification 103A, 103A–W, 103B, or 103B–W will be accepted as pressure-vessel type cargo tanks, provided the maximum pressure to which the tanks may be subjected does not exceed 30 pounds per square inch, and provided that prior to installing such tanks on a barge or cargo vessel, the owner shall furnish the Commandant with a copy of the inspection report certifying that the tanks and appurtenances comply with Interstate Commerce Commission specifications.

(d) When compressed air is used to discharge the cargo, the tank shall be fitted with a vent led to atmosphere in which shall be installed a rupture disc. The rupture disc shall be designed to burst at a pressure not exceeding the design pressure of the tank. An auxiliary vent to relieve the pressure or vacuum in the tank during filling or discharge of the cargo may be led from the vent line between the tank and the rupture disc. A shut-off valve may be fitted in the auxiliary vent.

(e) Except as otherwise specified in this section, the vents shall conform to the requirements of § 98.10–10 (b).

§ 98.10–20 *Installation.* (a) Adequate clearance shall be provided for the inspection and maintenance of independent cargo tanks, or such tanks shall be made movable.

§ 98.10–25 *Openings in tanks.* (a) Openings in tanks are prohibited below deck, except for access openings used for inspection and maintenance of tanks, or unless otherwise specifically approved by the Commandant. Openings shall be fitted with bolted cover plates and acid-resistant gaskets.

§ 98.10–30 *Cargo piping.* (a) Where special arrangements are approved by the Commandant to permit a pump suction to be led from the bottom of the tank, the filling and discharge lines shall be fitted with shut-off valves located above the weather deck or operable therefrom.

§ 98.10–35 *Outage.* (a) Sufficient outage shall be provided to prevent the tanks from being liquid full at any time, but in no case shall the outage be less than 1 percent.

§ 98.10–40 *Lining.* (a) The interior surfaces of cargo tanks shall be made smooth, welds chipped or ground smooth, and the surfaces thoroughly cleaned before the lining is applied. All interior surfaces of the tanks shall be maintained free from scale, oxidation, moisture and all foreign matter during the lining process.

(b) The material used for lining or coating the tanks shall be resistive to attack by the sulfuric acid to be carried; homogeneous, nonporous, and imperforate when applied; and not less elastic than the metal of the tank proper. It shall be of substantially uniform thickness, not less than $\frac{5}{32}$ inch for lead lining, and not less than $\frac{3}{16}$ inch for rubber lining. The lining shall be directly bonded to the tank plating, or attached by other satisfactory means acceptable to the Commandant.

(c) Rubber lining shall be scarfed at the joints to overlap at least $1\frac{1}{2}$ inches, and the faying surfaces shall be beveled to an angle of approximately 45° with vulcanizing being done in place.

(d) Cargo piping, including valves, fittings, and flanges, when subject to the corrosive attack of the acid, shall be lined or coated with corrosion-resistant material. Vent piping, including flanges and fittings, shall be similarly lined or coated at least to the height of the frangible disc, if such is installed.

§ 98.10–45 *General requirements.* (a) All enclosed compartments containing sulfuric acid cargo tanks and all machinery spaces containing cargo pumps for handling sulfuric acid shall be fitted with effective means of ventilation.

(b) Cargo pumps, piping, valves, fittings, and flanges used in the handling of sulfuric acid cargo shall be made of material resistive to attack by the sulfuric acid to be carried, or shall be suitably protected against such corrosive attack.

(c) A separator shall be fitted in compressed air lines to the tank when air pressure is used to discharge the cargo.

(d) The use of naked lights and artificial lights, other than electric lights or portable battery lights, is prohibited during the filling and discharge operations. Smoking is prohibited and the master or officer in charge of the vessel shall post "No Smoking" signs during filling and discharging operations. All tools used in the loading or unloading operations shall be of the nonsparking type. Fire or other naked lights shall not be applied to any tank for the purpose of liquefying congealed sulfuric acid. Heating coils will only be permitted as a means of liquefying frozen or congealed sulfuric acid.

(e) A water hose shall be connected ready for immediate use and any leakage or spillage of acid shall be immediately washed down.

(f) Tanks approved for the transportation of sulfuric acid in bulk shall not be used for the transportation of any other commodity, except upon authorization by the Commandant (OPL).

§ 98.10–50 *Tests and inspections.* (a) Each gravity type cargo tank shall be tested before being put into service as prescribed in § 98.10–10 (a).

(b) Unlined gravity type cargo tanks shall be retested as prescribed in § 98.10–10 (a) eight years after being placed into service and at each four year interval thereafter, as well as before being returned to service after extensive repairs.

(c) Unlined pressure-vessel type cargo tanks shall be subjected to a hydrostatic pressure of one and one-half times the design pressure at any time the marine inspector considers such hydrostatic tests necessary to determine the condition of the tanks.

(d) Each cargo tank shall be subjected to an internal examination at least once in every four years. Where the lining of a cargo tank has deteriorated in service or is not in place, the marine inspector may require such tank to be subjected to the prescribed hydrostatic test if deemed necessary to determine the condition of the tank.

SUBPART 98.15—HYDROCHLORIC ACID IN BULK

§ 98.15–1 *General.* (a) Hydrochloric acid may be carried in bulk in cargo barges, tank barges, or cargo vessels in accordance with the provisions of this subpart.

(b) Any vessel carrying hydrochloric acid in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D (Tank Vessels) of this chapter as applicable.

§ 98.15–5 *How acid may be carried.* (a) Hydrochloric acid shall be carried in gravity or pressure type cargo tanks which are independent of the vessel's structure provided such tanks are lined with rubber or other equally suitable material acceptable to the Commandant.

§ 98.15–10 *Gravity type cargo tanks.* (a) Gravity type cargo tanks shall be designed and tested to meet the rules of the American Bureau of Shipping for a head of water at least 8 feet above the tank top or the highest level the lading may rise, whichever is the greater. The plate thickness of any part of the tank shall not be less than ⅜ inch. Such tanks shall be independent of the vessel's structure.

(b) Gravity type tanks shall be vented to atmosphere. A vent shall be fitted having a cross-sectional area of not less than that of the filling line unless an ullage opening is provided having a cross-sectional area at least equal to that of the filling line. The minimum size of a cargo tank vent shall not be less than 2½ inches. The outlet end of the vent shall terminate above the weather deck, clear of all obstructions and away from any source of flame. The vent shall terminate in a gooseneck bend and shall be fitted with a single flame screen of at least 30 x 30 mesh; or two screens of at least 20 x 20 mesh, not less than 1 inch nor more than 1½ inches apart. The flame screens shall be of corrosion-resistant wire. No shut-off valve or frangible disc shall be fitted in the vent lines.

(c) Compressed air shall not be used to discharge cargo from gravity type cargo tanks.

§ 98.15–15 *Pressure-vessel type cargo tanks.* (a) Pressure-vessel type cargo tanks shall be independent of the vessel's structure and shall be designed for the maximum pressure to which they may be subjected when compressed air is used to discharge the cargo, but in no case shall the design pressure be less than 50 pounds per square inch.

(b) Pressure-vessel type cargo tanks shall be designed as Class II or Class III unfired arc-welded cylindrical pressure vessels, inspected and tested as required by Subchapter F (Marine Engineering) of this chapter.

(c) Tanks designed, inspected and tested as required by Interstate Commerce Commission Specification 103B or 103B–W will be accepted as pressure-vessel type cargo tanks: *Provided*, That the maximum pressure to which the tanks may be subjected does not exceed 30 pounds per square inch, and: *Provided further*, That prior to installing such tanks on a barge or cargo vessel, the owner shall furnish the Commandant with a copy of the inspection report certifying that the tanks and appurtenances comply with Interstate Commerce Commission specifications.

(d) When compressed air is used to discharge the cargo, the tank shall be fitted with a vent led to atmosphere in which shall be installed a rupture disc. The rupture disc shall be designed to burst at a pressure not exceeding the design pressure of the tank. An auxiliary vent to relieve the pressure or vacuum in the tank during filling or discharge of the cargo may be led from the vent line between the tank and the rupture disc. A shut-off valve may be fitted in the auxiliary vent.

(e) Except as otherwise specified in this section, the vent shall conform to the requirements of § 98.15–10 (b).

§ 98.15–20 *Installation.* (a) Adequate clearance shall be provided for the inspection and maintenance of the tanks, or such tanks shall be made movable.

§ 98.15–25 *Openings in tanks.* (a) Openings in tanks are prohibited below deck, except for access openings used for inspection and maintenance of tanks, or unless otherwise specifically approved by the Commandant. Openings shall be fitted with bolted cover plates and acid-resistant gaskets.

§ 98.15–30 *Cargo piping.* (a) Where special arrangements are approved by the Commandant to permit a pump suction to be led from the bottom of the tank, the filling and discharge lines shall be fitted with shut-off valves located above the weather deck or operable therefrom.

§ 98.15–35 *Outage.* (a) Sufficient outage shall be provided to prevent the tanks from being liquid full at any time, but in no case shall the outage be less than 1 percent.

§ 98.15–40 *Lining.* (a) The interior surfaces of cargo tanks shall be made smooth, welds chipped or ground smooth, and the surfaces thoroughly cleaned before the lining is applied. All interior surfaces of the tanks shall be maintained free from scale, oxidation, moisture and all foreign matter during the lining process.

(b) The rubber or other approved lining material shall be resistive to attack by hydrochloric acid; homogeneous, nonporous, and imperforate when applied; and not less elastic than the metal of the tank proper. It shall be of substantially uniform thickness, not less than ¼ inch for rubber lining. The lining shall be directly bonded to the tank plating, or attached by other satisfactory means acceptable to the Commandant.

(c) Rubber lining shall be scarfed at the joints to overlap at least 1½ inches, and the faying surfaces shall be beveled to an angle of approximately 45 degrees with vulcanizing being done in place.

(d) Cargo piping, including valves, fittings, and flanges, when subject to the corrosive attack of the acid, shall be rubber-lined or coated with other corrosion-resistant material. Vent piping, including flanges and fittings, shall be similarly lined or coated at least to the height of the frangible disc if such is installed.

§ 98.15–45 *General requirements.* (a) All enclosed compartments containing hydrochloric acid cargo tanks and all machinery spaces containing cargo pumps for handling hydrochloric acid shall be fitted with effective means of ventilation.

(b) Cargo pumps, piping, valves, fittings, and flanges used in the handling of hydrochloric acid cargo shall be made of material resistive to attack by hydrochloric acid, or shall be suitably protected against such corrosive attack.

(c) A separator shall be fitted in compressed air lines to the tank when air pressure is used to discharge the cargo.

(d) The use of naked lights and artificial lights, other than electric lights or portable battery lights, is prohibited during the filling and discharging operations. Smoking is prohibited and the master or officer in charge of the vessel shall post "No Smoking" signs during filling and discharging operations. All

tools used in the loading or unloading operations shall be of the nonsparking type.

(e) A water hose shall be connected ready for immediate use and any leakage or spillage of acid shall be immediately washed down.

(f) Tanks approved for the transportation of hydrochloric acid shall not be used for the transportation of any other commodity, except upon authorization by the Commandant (OPL).

(g) Spent hydrochloric acid or hydrochloric acid adulterated by other chemicals, inhibitors, oils, solvents, water, etc., shall not be transported in bulk cargo tanks except upon authorization by the Commandant (OPL).

§ 98.15–50 *Tests and inspections.* (a) Each gravity type cargo tank shall be tested before being placed into service as prescribed in § 98.15–10 (a).

(b) Each cargo tank shall be subjected to an internal examination at least once in every four years. Where the lining of the cargo tank has deteriorated in service or is not in place, the marine inspector may require such tank to be subjected to the prescribed hydrostatic test if deemed necessary to determine the condition of the tanks.

SUBPART 98.20—LIQUID CHLORINE IN BULK

§ 98.20–1 *General.* (a) Liquid chlorine may be carried in bulk in steel tank barges or steel cargo barges in accordance with the provisions of this subpart.

(b) Any barge carrying liquid chlorine in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D (Tank Vessels) of this chapter, as applicable.

§ 98.20–5 *How liquid chlorine may be carried.* (a) Liquid chlorine shall be carried in unfired pressure vessel type tanks independent of the structure of the vessel.

§ 98.20–10 *Design and construction of cargo tanks.* (a) The cargo tanks shall meet the requirements of Class I arc-welded unfired pressure vessels and shall be fabricated, inspected and tested in accordance with the applicable requirements of Subchapter F (Marine Engineering) of this chapter.

(b) Tanks shall be designed for a pressure of not less than 300 pounds per square inch. For the maximum allowable pressure of tanks in service see § 98.20–75 (c).

(c) Each tank shall be provided with 15 x 18-inch or 18-inch minimum diameter manhole, fitted with a cover located above the maximum liquid level and as close as possible to the top of the tank.

§ 98.20–15 *Markings.* (a) Upon satisfactory completion of tests and inspection, the following markings at least ⅜ inch high shall be stamped into a noncorrodible plate permanently attached to the tank by welding.

---

(Name and address of fabricator)

---- p. s. i. ---- p. s. i.

(Design pressure) (Shop test pressure)

---

(Inspector's number, initials and CG symbol)

---

(Manufacturer's serial number)

---- ------ U. S. gallons

(Date of manufacture) (Water capacity)

(b) In addition to the markings required to be stamped on the tank, the legend "chlorine" shall be conspicuously and legibly marked upon the dome or upper portion of the tank in letters at least 4 inches high.

(c) All tank inlet and outlet connections, except safety relief valves shall be labeled to designate whether they terminate in the vapor or liquid space. Labels of noncorrodible material may be attached to the valves.

(d) All tank markings shall be permanently and legibly stamped in a readily visible position.

§ 98.20–20 *Installation of cargo tanks.* (a) Independent tanks shall be arranged in the barge so as to provide a minimum clearance of not less than 24 inches from the barge side and not less than 15 inches from the barge bottom. Where more than one tank is installed in a barge, the distance between such tanks shall not be less than 15 inches, unless otherwise approved by the Commandant. Alternate provisions may be made for moving such tanks to provide for adequate inspection and maintenance of barge structure and the tanks.

(b) The design shall show the manner in which the tanks are to be installed, supported, and secured on board the barge and shall be approved prior to the installation. Tanks shall be supported in steel saddles and securely anchored in place. No appendages shall be welded to the tanks after they have been stress-relieved unless authorized by the Commandant.

(c) Tanks may be installed "on deck" or "under deck" with the tank protruding above deck. On installations where a portion of the tank extends above the weather deck, provision shall be made to maintain the weather tightness of the deck, except that barges operating on protected inland waters may have tanks located in the holds of hopper type barges without water-tightness of the deck being maintained. All tanks shall be installed with the manhole opening and fittings located above the weather deck.

(d) The hold or holds in which tanks are located "under deck" shall be provided with mechanical ventilation of sufficient capacity to assure a change of air every 3 minutes.

§ 98.20–25 *Cargo tanks on barges.* (a) Sides of tank barges shall be fitted with suitable guards as added precaution against the cargo tanks being damaged as a result of collision.

§ 98.20–30 *Valves, fittings, and accessories.* (a) All valves, flanges, fittings and accessory equipment shall be of a type suitable for use with chlorine and shall be made of forged steel, cast steel, or nonferrous metal corrosion resistant to chlorine in either the gas or liquid phase. Valves, flanges and fittings shall be of the square or round tongue and groove type or of raised face, American Standard Association 300-pound standard minimum, fitted with sheet lead or other suitable gasket material. Welding fittings shall be used wherever possible, and the number of pipe joints held to a minimum. Screwed joints in cargo lines and vapor lines are prohibited in sizes above 1 inch.

(b) Each tank shall be provided with the necessary fill and discharge liquid and vapor shut-off valves, and safety relief valves, which shall be grouped in the smallest practicable space and shall be protected against mechanical damage by a suitable protective metal housing. Other openings in tanks are prohibited. A drain connection shall be provided from the protective housing and led overboard just above deepest load line.

(c) All liquid and vapor connections to the tanks, except safety relief valves, shall have manually operated shut-off valves located as close to the tank as practicable.

(d) Excess flow valves, where required by this subpart, shall close automatically at the rated flows of vapor or liquid as specified by the manufacturer. The piping, including valves, fittings, and appurtenances, protected by excess flow valves shall have a greater capacity than the rated flow of the excess flow valve.

(e) Liquid level gaging devices of any type are prohibited on chlorine tanks.

(f) A pressure gage shall be attached to the vapor shut-off valve or vapor line so as to indicate the pressure in the tank at all times during loading and unloading.

(g) Excess flow valves shall be located on the inside of the tank. Back pressure check valves may be located on the inside of the tank or on the outside where the piping enters the tank. When installed on the outside, installation shall be in such a manner that any undue strain will not cause breakage between the tank and the back pressure check valve.

(h) Excess flow valves may be designed with a bypass, not to exceed No. 60 drill size opening, to allow for equalization of pressure.

§ 98.20–35 *Filling and discharge pipes.* (a) Filling connections shall be provided with one of the following:

(1) Combination back pressure check valve and excess flow valve;

(2) One double or two single back pressure check valves; or

(3) A positive shut-off valve in conjunction with either an internal back pressure check valve or an internal excess flow valve.

(b) All other liquid and vapor connections to tanks, except filling connections and safety relief valves, shall be equipped with automatic excess flow valves.

§ 98.20–40 *Cargo piping.* (a) Piping shall be of seamless drawn black steel of a thickness of not less than schedule 80.

(b) Piping shall be provided with adequate support to take the weight of the piping off the valves and fittings. Where necessary, provision shall be made for expansion and contraction of piping by

means of seamless steel pipe expansion bends. Slip-type expansion joints are prohibited.

(c) In multiple tank installations the tanks shall not be interconnected by piping or manifolds. More than one cargo tank may be filled or discharged at a time, provided each tank is filled from or discharged to shore tanks through separate lines.

§ 98.20–45 *Safety relief valves.* (a) Each tank shall be fitted with one or more approved safety relief valves, designed, constructed, and flow tested for capacity in conformance with Subpart 162.018 in Subchapter Q (Specifications) of this chapter. The safety valve requirements in this section are based on unlagged tanks. On lagged tanks, the Commandant will give special consideration to safety valves proposed to be used.

(b) Each safety relief valve shall be set to pop at a pressure not in excess of the maximum allowable pressure of the tank and shall be vapor tight at a pressure of not less than 80 percent of the maximum allowable pressure.

(c) The safety relief valve(s) shall have a relieving capacity sufficient to prevent a rise of pressure in the tank of more than 20 percent above the maximum allowable pressure when the safety relief valve(s) are blowing.

(d) The minimum rates of discharge of safety relief valves used on unlagged tanks shall be not less than determined by the following formula:

$$Q = 53.526A^{0.82} \qquad (1)$$

where:

$Q$ = minimum required rate of discharge, in cubic feet per minute, of standard air at 120 percent of the maximum set pressure of the safety relief valve. Discharge measured at 60° F. and atmospheric pressure (14.7 p. s. i. a.).

$A$ = total external surface area of the tank, in square feet. $\pi(D \times U)$, for cylindrical tank with hemispherical heads. $\pi D(U + 0.3D)$, for cylindrical tank with spherically dished or semi-ellipsoidal heads. $\pi D^2$, for spherical tank.

$D$ = outside diameter of the tank, in feet.

$U$ = external overall length of the tank, in feet.

(e) Safety relief valve(s) shall be attached to the tank near the highest point of the vapor space. Shut-off valves shall not be installed between the tanks and the safety relief valve(s).

(f) Each safety relief valve shall be tested in the presence of an inspector before or after mounting prior to being placed in service. The test shall prove that the safety valve will start to discharge at a pressure not in excess of the maximum allowable pressure of the tank. (For periodic tests see § 98.20–75 (c).)

§ 98.20–50 *Filling density.* (a) The filling density, or the percent ratio of the liquefied gas that may be loaded into the tank to the weight of water the tank will hold at 60° F., shall not exceed 125 percent.

§ 98.20–55 *Venting.* (a) Cargo tanks of tank barges shall have the safety relief valve outlets connected to individual or common risers which shall extend to a reasonable height above the deck, or, the safety relief valve escape may be led to a common discharge header. Where the escape of vapors from the venting system may interfere with towing operations or the operation of the barge in inland waters would be a hazard to installations extending above deck, an installation acceptable to the Commandant may be used. This arrangement shall be such as to minimize the hazard of escaping vapors.

(b) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 98.20–55 (b).

TABLE 98.20–55 (b)—CAPACITY OF BRANCH VENTS OR VENT HEADERS

| Number cargo tanks: | *Percent total valve discharge* |
|---|---|
| 1 or 2 | 100 |
| 3 | 90 |
| 4 | 80 |
| 5 | 70 |
| 6 or more | 60 |

(c) Return bends and restrictive pipe fittings are prohibited. Vents and headers shall be so installed as to prevent stresses on safety relief valve mountings.

(d) When vent discharge risers are installed, they shall be so located as to provide protection against physical damage and be fitted with loose raincaps.

(e) Suitable provision shall be made for draining the vent escape piping if liquid can collect therein.

§ 98.20–60 *Filling and discharge operation.* (a) The maximum amount of liquid chlorine that may be loaded into the cargo tanks shall be determined by weight and shall not exceed the filling density specified in § 98.20–50. Any chlorine vapors vented during the filling operation shall be disregarded when calculating the maximum amount of chlorine to be loaded into the cargo tanks.

(b) Prior to the start of filling operations, care shall be exercised to insure that the cargo tank(s) is empty and free from foreign matter. After all pipe connections and fittings are made tight, the cargo tank(s) shall be evacuated to at least 20 inches of mercury.

(c) The chlorine shall be loaded through a direct pipe line from the shore tank that is mounted on scales so that an amount of chlorine predetermined by weight is loaded into the cargo tank(s) on board the barge.

(d) After the filling operation is completed the vapor above the liquid chlorine in the cargo tank shall be analyzed to determine the percentage of gaseous chlorine in the vapor space. If it should contain less than 80 percent chlorine, vapors shall be withdrawn through the vent or vapor line until the vapor content in the cargo tanks show at least 80 percent chlorine.

(e) After filling connections are removed, upon completion of the loading of a cargo tank, all connections at the tank shall be tested for leakage of chlorine by the aqua ammonia method.

(f) The chlorine in the cargo tanks shall be discharged by the pressure differential method. Where the vapor pressure of the chlorine is not sufficient to force the liquid out of the tank, compressed air may be used to secure the desired rate of discharge, provided the air is oil-free and thoroughly dried by passing it over activated aluminum oxide, silica gel, or other acceptably drying agent. The compressed air system shall contain a relief valve arranged and set so that the air pressure in the cargo tank cannot exceed 70 percent of the allowable pressure of the tank.

(g) After completion of the filling or discharge operations, the excess liquid chlorine in the cargo piping shall be removed. The filling and discharge piping shall be disconnected at the cargo tanks, except during filling and discharge operations. After disconnecting the cargo piping, both ends of the line shall be closed and all inlet and outlet valves on the tank shall be plugged or fitted with blind flanges.

(h) Plans showing alternate methods of filling and discharging the lading may be submitted for approval.

§ 98.20–65 *Cargo hose.* (a) Cargo hose fabricated of Schedule 80 seamless black steel pipe, or corrosion resistant metallic pipe not subject to deterioration by chlorine, having metallic flexible joints, or other types of flexible metallic hose acceptable to the Commandant, shall be fitted to the liquid or vapor lines during filling and discharging of the cargo tanks.

(b) Cargo hose subject to tank pressure shall be designed for a bursting pressure of not less than five times the maximum safety relief valve setting of the tanks.

(c) Before being placed in service, each new cargo hose, with all necessary fittings attached, shall be hydrostatically tested by the manufacturer to a pressure of not less than twice the maximum pressure to which it may be subjected in service. The hose shall be marked with the maximum pressure guaranteed by the manufacturer.

§ 98.20–70 *Special operating requirements.* (a) Repairs involving welding or burning shall not be undertaken on the tanks or piping while chlorine in either liquid or vapor state is present in the system.

(b) During the time chlorine is laden in the tanks the barge shall be under constant surveillance. A towing vessel engaged in towing such barges shall not leave the barge unattended except when the barge is moored at a pier, wharf, dock, or other terminal, and then only if such facility is provided with watchman or guard service. When the barge is at the consignor's or consignee's terminal, watchman or guard service shall be provided by said consignor or consignee.

(c) The Interstate Commerce Commission's standard "Dangerous" placard shall be displayed in four locations on the barge when chlorine is laden in the tanks. A placard shall be posted approximately amidships on each side and facing outboard. A placard shall also be posted on each end of the barge at about the ends of the tanks facing outboard. Racks for mounting such placards shall be so arranged as to provide clear visibility and be protected from

becoming readily damaged or obscured. After unloading and before a tank or tanks are gas-freed, the placard shall be reversed to show the "Dangerous—Empty" legend.

(d) At least two units of self-contained oxygen breathing apparatus shall be carried on board the barge at all times. One unit shall be stowed forward of the cargo tanks and one unit aft of the cargo tanks.

(e) Unless authorized by the Commandant (OPL), no other kind of cargo except liquid caustic soda shall be on board a barge at the same time that chlorine in liquid or vapor state is present in a cargo tank. Chlorine tanks shall not be installed within caustic soda tanks.

(f) Authorization from the Commandant (OPL) shall be obtained to transport lading other than chlorine in tanks of this service.

§ 98.20-75 *Tests and inspections.* (a) Each cargo tank shall be subjected to an internal and external examination biennially.

(b) Each cargo tank shall be subjected to hydrostatic test biennially of one and one-half times the maximum allowable pressure as determined by the safety relief valve setting.

(c) When periodic inspection indicates that a cargo tank has deteriorated in service, the maximum allowable pressure shall be recalculated, using the minimum thickness found by actual measurement. The recalculated maximum allowable pressure shall be not less than 275 pounds per square inch; otherwise, the cargo tanks shall be withdrawn from service.

(d) The safety relief valves shall be popped in the presence of an inspector by use of water, compressed air, or inert compressed gas at the time of the biennial inspection, or at such time as may be required by the inspector to determine the accuracy of adjustment; and, if necessary, such valves shall be repaired and reset.

§ 98.20-80 *Stores on board.* (a) The following substances shall not be used as stores on board barges transporting chlorine in bulk: Hydrogen, methane, liquefied petroleum gases, coal gas, acetylene, ammonia, turpentine, compounds containing metallic powders, finely divided metals or finely divided organic materials.

## SUBPART 98.25—ANHYDROUS AMMONIA IN BULK

§ 98.25-1 *General.* (a) Anhydrous ammonia may be carried in bulk in cargo barges, tank barges, or cargo vessels in accordance with the provisions of this subpart.

(b) Any vessel carrying anhydrous ammonia in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D (Tank Vessels) of this chapter as applicable.

§ 98.25-5 *How anhydrous ammonia may be carried.* (a) Anhydrous ammonia shall be carried in unfired pressure vessel type tanks independent of the structure of the vessel, except as provided otherwise in this subpart.

§ 98.25-10 *Design and construction of cargo tanks.* (a) The cargo tanks shall meet the requirements for Class I or Class II arc-welded unfired pressure vessels and shall be fabricated, inspected and tested in accordance with the applicable requirements of Subchapter F (Marine Engineering) of this chapter.

(b) Unlagged cargo tanks subject to atmospheric temperatures shall be designed for a pressure of not less than 250 pounds per square inch gage.

(c) Where unrefrigerated cargo tanks are lagged as required by §§ 98.25-30 and 98.25-60, the tanks shall be designed for a pressure of not less than 215 pounds per square inch gage.

(d) Refrigerated cargo tanks, in which the temperature of the liquid ammonia is maintained below the normal atmospheric temperatures, shall be designed for a pressure of not less than the vapor pressure corresponding to the temperature of the liquid at which the system is to be maintained, plus 25 pounds per square inch gage, but in no instance shall the design pressure be less than 90 pounds per square inch.

(e) Each tank shall be provided with not less than a 15" x 18" diameter manhole, fitted with a cover located above the maximum liquid level and as close as possible to the top of the tank. Where access trunks are fitted to tanks, the diameter of the trunks shall be not less than 30 inches.

§ 98.25-15 *Markings.* (a) Upon satisfactory completion of tests and inspection, the following marking, at least ⅜ inch high, shall be stamped into a noncorrodible nameplate permanently attached to the tank by means of welding.

---
(Name and address of fabricator)
---- p. s. i. ---- p. s. i.
(Design pressure) (Shop test pressure)
---
(Manufacturer's serial number)
---
---- U. S. gallons
(Water capacity)
---
(Date of manufacture)

(b) In addition to the markings required to be stamped on the tank, the legend, "Anhydrous Ammonia" shall be conspicuously and legibly marked upon the dome or upper portion of the tank in letters at least 4 inches high.

(c) All tank inlet and outlet connections, except safety relief valves, liquid level gaging devices, and pressure gages shall be labeled to designate whether they terminate in the vapor or liquid space. Labels of noncorrosive material may be attached to valves.

(d) All tank markings shall be permanently and legibly stamped in a readily visible position. If the tanks are lagged, the markings attached to the tank proper shall be duplicated on a corrosion resistant plate secured to the outside jacket of the lagging.

§ 98.25-20 *Installation of cargo tanks.* (a) Independent tanks shall be arranged in the barge or vessel so as to provide a minimum clearance of not less than 24 inches from the vessel's side and not less than 15 inches from the vessel's bottom. Where more than one tank is installed in a vessel, the distance between such tanks shall be not less than 15 inches, unless otherwise approved by the Commandant. Alternate provisions may be made for moving such tanks to provide for adequate inspection and maintenance of the vessel's structure and the tanks.

(b) The design shall show the manner in which the tanks are to be installed, supported, and secured in the barge or vessel and shall be approved prior to installation. Tanks shall be supported in steel saddles and securely anchored in place. If the tanks are required to be stress-relieved no appendages shall be welded to the tanks after they have been stress-relieved unless authorized by the Commandant.

(c) Tanks may be located in dry cargo holds or in liquid cargo tanks or may be installed "on deck" or "under deck" with the tank protruding above deck. On installations where a portion of the tank extends above the weather deck, provision shall be made to maintain the weathertightness of the deck, except that vessels operating on protected inland waters may have tanks located in the holds of hopper type barges without the watertightness of the deck being maintained. All tanks shall be installed with the manhole opening and fittings located above the weather deck.

(d) The anhydrous ammonia tanks may be installed in the bulk liquid cargo tanks provided the liquid surrounding the enclosed anhydrous ammonia tanks complies with the following chemical and physical properties:

(1) Boiling point above 125° F. at atmospheric pressure.

(2) Inert to ammonia at 100° F. at atmospheric pressure.

(3) Noncorrosive in the liquid and vapor phase to the ammonia tanks and piping.

§ 98.25-25 *Cargo tank barges.* (a) Tanks having a cargo capacity of not more than 60,000 gallons may form part of the structure of a barge where adequate provision is made to prevent damage to tanks in the event of collision or grounding.

(b) Sides of tank barges shall be fitted with suitable guards as an added precaution against the cargo tanks being damaged as a result of collision.

§ 98.25-30 *Lagging.* (a) Lagged tanks shall be covered with an incombustible insulation material of a thickness to provide a thermal conductance of not more than 0.075 B. t. u. per square foot per degree F. differential in temperature per hour. The insulating material shall be of an approved type complying with the requirements of Subpart 164.009 of Subchapter Q (Specifications) of this chapter, and shall be given a vapor proof coating with fire retardant material acceptable to the Commandant. Tanks exposed to the weather shall have the insulation and vapor proof coating covered with a removable sheet metal jacket of not less than 0.083 inch thickness and flashed around all openings so as to be weather tight. Materials other than sheet metal may be used to cover the insulation and vapor proof coating when

specifically authorized by the Commandant.

(b) Where unlagged tanks are installed in insulated holds or insulated 'tween deck spaces, such tanks shall be considered lagged provided the thermal conductance of the insulation is not less than that required by paragraph (a) of this section.

§ 98.25-35 *Refrigerated systems.* (a) Where refrigerated systems are installed to maintain the temperature of the liquid below atmospheric, at least two complete refrigeration plants automatically regulated by pressure variations within the tanks shall be provided, each to be complete with the necessary auxiliaries for proper operation. The capacity of each refrigeration compressor shall be sufficient to maintain the vapor pressure in the tanks during the peak atmospheric temperature conditions below the pressure for which the tanks are designed.

(b) An alternate arrangement may consist of three compressors, any two of which shall be capable of maintaining the vapor pressure in the tanks during peak atmospheric temperature conditions below the pressure for which the tanks are designed, the third compressor acting as a stand-by unit.

(c) Refrigerated tanks shall be insulated in conformance with the requirements of § 98.25-30.

§ 98.25-40 *Valves, fittings, and accessories.* (a) All valves, flanges, fittings, and accessory equipment shall be of a type suitable for use with anhydrous ammonia and shall be made of steel, or Grade A malleable iron conforming to the requirements of Part 51 of Subchapter F (Marine Engineering) of this chapter. Valves shall be fitted with noncorrosive material suitable for ammonia service. Valves, flanges, and pipe fittings shall be of the square or round tongue and groove type or raised-face American Standard Association 300-pound standard minimum fitted with suitable soft gasket material. Welded fittings shall be used wherever possible, and the number of pipe joints shall be held to a minimum. Screwed joints are not permitted for pipe diameters exceeding two inches. Nonferrous materials, such as copper, copper alloys, and aluminum alloys shall not be used in the construction of valves, fittings, or accessory equipment. Brazed joints are prohibited.

(b) Each tank shall be provided with the necessary fill and discharge liquid and vapor shut-off valves, safety relief valves, liquid level gaging devices, thermometer well and pressure gage, and shall be provided with suitable access for convenient operation. Connections to tanks installed below the weather deck shall be made to a trunk or dome extending above the weather deck. Tanks installed on hopper barges shall have all pipe connections attached to the top of the tanks. Connections to the tanks shall be protected against mechanical damage and tampering. Other openings in the tanks, except as specifically permitted by this part, are prohibited.

(c) All connections to the tanks, except safety devices and liquid level gaging devices, shall have manually operated shut-off valves located as close to the tank as possible.

(d) Excess flow valves where required by this section shall close automatically at the rated flow of vapor or liquid as specified by the manufacturer. The piping, including valves, fittings and appurtenances, protected by an excess flow valve, shall have a greater capacity than the rated flow of the excess flow valve.

(e) Liquid level gaging devices which are so constructed that outward flow of tank contents shall not exceed that passed by a No. 54 drill size opening, need not be equipped with excess flow valves.

(f) Pressure gage connections need not be equipped with excess flow valves if the openings are not larger than No. 54 drill size.

(g) Excess flow valves may be designed with a bypass, not to exceed a No. 60 drill size opening, to allow equalization of pressure.

(h) Prior to disconnecting shore lines, the pressure in the liquid and vapor lines shall be relieved through suitable valves installed at the loading header.

(i) Relief valves shall be fitted in liquid lines which may be subject to excessive pressure caused by liquid full condition, and the escape from the relief valves shall be piped to the venting system.

(j) The pressure gage shall be located at the highest practical point. The thermometer well shall terminate in the liquid space and be attached to the shell by welding with the end of the fitting being provided with a gas-tight screwed plug or bolted cover.

§ 98.25-45 *Liquid level gaging device.* (a) Each tank shall be fitted with a liquid level gaging device of suitable design to indicate the maximum level to which the tank may be filled with liquid at temperatures between 20° F. and 130° F.

(b) Liquid level gaging devices shall be of the following types: magnetic, rotary tube, slip tube, fixed tube, automatic float, or other types acceptable to the Commandant.

(c) Gaging devices that require bleeding of the product to the atmosphere, such as rotary tube, fixed tube, and slip tube, shall be so designed that the bleed valve maximum opening is not larger than a No. 54 drill size, unless provided with an excess flow valve.

(d) Gaging devices shall have a design pressure of at least 250 pounds per square inch.

(e) Gage glasses of the columnar type are prohibited.

§ 98.25-50 *Filling and discharge pipes.* (a) Filling connections shall be provided with one of the following:

(1) Combination back pressure check valve and excess flow valve;

(2) One double or two single back pressure check valves; or

(3) A positive shut-off valve in conjunction with either an internal back pressure check valve or an internal excess flow valve.

(b) All other liquid and vapor connections to tanks, except filling connections, safety relief valves, and liquid level gaging devices and pressure gages described in § 98.25-40 (e) and (f) shall be equipped with automatic excess flow valves; or in lieu thereof, may be fitted with quick closing internal stop valves, which, except during filling and discharge operations, shall remain closed. The control mechanism for such valves shall be provided with a secondary remote control of a type acceptable to the Commandant.

(c) The excess flow, internal stop or back pressure check valves shall be located on the inside of the tank or outside where the piping enters the tank. In the latter case, installation shall be made in such a manner that any undue strain will not cause breakage between the tank and the excess flow or internal stop valve.

(d) Where the filling and discharge are made through a common nozzle at the tank, and the connection is fitted with a quick-closing internal stop valve as permitted in paragraph (b) of this section, the back pressure check valve or excess flow valve is not required, provided, however, a positive shut-off valve is installed in conjunction with the internal stop valve.

(e) On tanks installed in barges operating on protected inland waters the suction may be taken from the bottom of the tank provided requirements as follows are met:

(1) A manually operated shut-off valve is attached to the outlet nozzle and a remotely operated internal stop valve is fitted inside the tank.

(2) The remotely controlled valve shall be operable from control stations located at each end of the barge so that the remotely controlled valve on any tank can be closed from either station.

§ 98.25-55 *Cargo piping.* (a) Piping shall be of seamless drawn black steel of thickness not less than Schedule 40. In case of piping on the discharge side of the liquid pumps or vapor compressors, the design shall be for a pressure of not less than the pump or compressor relief valve setting; or if the piping is not fitted with relief valves, the design pressure shall not be less than the total discharge head of the pump or compressor.

(b) Where necessary, provision shall be made for expansion and contraction of piping by means of seamless steel pipe expansion bends. Special consideration will be given for packless type expansion joints. Slip type expansion joints are prohibited. Piping shall be provided with adequate support to take the weight of the piping off the valves and fittings.

§ 98.25-60 *Safety relief valves.* (a) Each tank shall be fitted with two or more approved safety relief valves, designed, constructed and flow-tested for capacity in conformance with Subpart 162.018 of Subchapter Q (Specifications) of this chapter.

(b) Each safety relief valve shall start to discharge at a pressure not in excess of the design pressure of the tank.

(c) The safety relief valves shall have a combined relieving capacity sufficient to prevent a rise of pressure in the tank of more than 20 percent above the maximum allowable pressure when all the safety relief valves are blowing.

(d) (1) The minimum rates of discharge of safety relief valves for uninsulated tanks shall be not less than that determined by the following formula:

$$Q = 21.633A^{0.82} \quad (1)$$

where:

$Q$ = minimum required rate of discharge, in cubic feet per minute of standard air at 120 percent of the maximum set pressure of the safety relief valve. Discharge measured at 60° F. and atmospheric pressure (14.7 p. s. i. a.).

$A$ = total external surface area of the tank, in square feet.

$= \pi(D \times U)$ for cylindrical tanks with hemispherical heads.

$= \pi D(U + 0.3D)$ for cylindrical tanks with spherically dished or semi-ellipsoidal heads.

$= \pi D^2$ for spherical tanks.

$D$ = outside diameter of the tanks, in feet.

$U$ = external overall length of the tank, in feet.

(2) The minimum rate of discharge of safety relief valves for lagged tanks insulated in conformance with § 98.25-30 need only be 50 percent of the capacity required for uninsulated tanks.

(e) Safety relief valves shall be attached to the tank near the highest point of the vapor space. Shut-off valves shall not be installed between the tanks and the safety relief valves, except manifolds for mounting multiple safety relief valves may be fitted with acceptable interlocking 3-way valves so arranged at all times as to permit at any position of the 3-way valve, an unrestricted flow of vapors through at least one port. When two safety relief valves are mounted in parallel on both the upper outlets of the 3-way valve, the arrangement shall be such as to permit at least one safety relief valve to be operative at all times.

(f) Each safety valve shall be tested in the presence of an inspector at the site of installation before or after mounting prior to being placed in service. The tests shall prove that the safety relief valve will start to discharge at a pressure not in excess of the maximum allowable pressure of the tank.

§ 98.25-65 *Filling density.* (a) The filling density, or the percent ratio of the liquefied gas that may be loaded in the tank to the weight of the water the tank will hold at 60° F., shall not exceed 56 percent for unlagged tanks and 58 percent for lagged or refrigerated tanks.

§ 98.25-70 *Venting.* (a) Except as provided in paragraph (b) of this section, each safety valve installed on a cargo tank shall be connected to a branch vent of a venting system which shall be constructed so that the discharge of gas will be directed vertically upward to a point at least 10 feet above the weather deck or the top of any tank or house located above the weather deck.

(b) Safety valves on cargo tanks in barges may be connected to individual or common risers which shall extend to a reasonable height above the deck. Where the escape of vapors from the venting system may interfere with towing operations, the installation shall be acceptable to the Commandant and the arrangement shall be such as to minimize the hazard of escaping vapors. Arrangements specially provided for venting cargo tanks forming part of the hull on unmanned barges will be given special consideration by the Commandant.

(c) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 98.25-70 (c).

TABLE 98.25-70 (c)—CAPACITY OF BRANCH VENTS OR VENT HEADERS

| Number of cargo tanks: | *Percent of total valve discharge* |
|---|---|
| 1 or 2 | 100 |
| 3 | 90 |
| 4 | 80 |
| 5 | 70 |
| 6 or more | 60 |

(d) In addition to the requirement specified in paragraph (c) of this section, the size of the branch vents or vent headers shall be such that the back pressure in relief valve discharge lines shall not be more than 10 percent of the safety relief valve setting.

(e) Return bends and restrictive pipe fittings are prohibited. Vents and headers shall be so installed as to prevent stresses on safety relief valve mountings.

(f) When vent discharge risers are installed, they shall be so located as to provide protection against physical damage and be fitted with loose raincaps.

(g) No shut-off valve shall be fitted in the venting system between the safety relief valve and the vent outlets. Suitable provision shall be made for draining the venting system if liquid can collect therein.

§ 98.25-75 *Ventilation.* (a) All enclosed spaces containing cargo tanks fitted with bottom outlet connections shall be provided with mechanical ventilation of sufficient capacity to assure a change of air every 3 minutes. Where cargo tanks are fitted with top outlet connections, the enclosed spaces containing such tanks shall be fitted with efficient natural or mechanical ventilation.

(b) Enclosed compartments in which machinery such as cargo pumps or vapor compressors are located shall be adequately ventilated.

§ 98.25-80 *Cargo hose.* (a) Cargo hose fabricated of seamless steel pipe with swivel joints, wire braided armored rubber or other hose material acceptable to the Commandant, shall be fitted to the liquid or vapor lines during filling and discharging of the cargo tanks.

(b) Hose subject to tank pressure shall be designed for a bursting pressure of not less than five times the maximum safety relief valve setting of the tank.

(c) Hose subject to discharge pressure of pumps or vapor compressors shall be designed for a bursting pressure of not less than five times the pressure setting of the pump or compressor relief valve.

(d) Before being placed in service, each new cargo hose, with all necessary fittings attached, shall be hydrostatically tested by the manufacturer to a pressure of not less than twice the maximum pressure to which it may be subjected in service. The hose shall be marked with the maximum pressure guaranteed by the manufacturer.

§ 98.25-85 *Electrical bonding.* (a) Each cargo tank shall be electrically grounded to the hull. The cargo barge or vessel shall be electrically connected to the shore piping prior to connecting the cargo hose. This electrical connection shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

§ 98.25-90 *Special operating requirements.* (a) Repairs involving the use of welding or burning equipment shall not be undertaken on the anhydrous ammonia barge while liquid or vapor is present in the tanks, except in an emergency involving the safety of the barge.

(b) During the time anhydrous ammonia is laden in the tanks the barge or vessel shall be under constant surveillance. A vessel engaged in towing such barges shall not leave the barge unattended except when the barge is moored at a pier, wharf, dock, or other terminal and then only if such facility is provided with watchman or guard service. When the barge is at the consignor's or consignee's terminal, watchman or guard service shall be provided by said consignor or consignee.

(c) The Interstate Commerce Commission's standard "Dangerous" placard shall be displayed in four locations on the barge when anhydrous ammonia is laden in the tanks. A placard shall be posted approximately amidships on each side and facing outboard. A placard shall be posted at each end of the barge at about the ends of the tanks facing outboard. Racks for mounting such placards shall be so arranged as to provide clear visibility and be protected from becoming readily damaged or obscured. After unloading and before the tank or tanks are gas-freed, the placard shall be reversed to show the "Dangerous—Empty" legend.

(d) Authorization from the Commandant (OPL) shall be obtained to transport lading other than anhydrous ammonia in the cargo tanks.

(e) Sufficient hose stations shall be installed with adequate water supply so that if leakage of anhydrous ammonia occurs the vapors may be removed by use of a stream of water.

(f) At least two ammonia gas masks, one stowed forward of the cargo tanks and one stowed aft of the cargo tanks shall be carried on board the vessel at all times.

§ 98.25-95 *Tests and inspections.* (a) Each cargo tank shall be subjected to an internal examination at least once in each 8 calendar years. Each lagged tank shall be subjected to an external inspection at least once in each 8 calendar years by having the jacket and lagging removed. An external examination of unlagged tanks and the visible parts of lagged tanks shall be made at each biennial inspection.

(b) A hydrostatic test of 1½ times the allowable pressure as determined by the safety relief valve setting shall be made at any time that the inspector considers such hydrostatic test necessary to determine the condition of the tank. If the jacket and lagging are not removed during the hydrostatic tests prescribed in this paragraph, the tank shall hold the hydrostatic test pressure for at least 20 minutes without a pressure drop.

(c) The safety relief valves shall be popped in the presence of a marine inspector by either liquid, gas or vapor pressure at least once every four years to determine the accuracy of adjustment and, if necessary, shall be reset.

## Subchapter J—Electrical Engineering

## PART 110—GENERAL PROVISIONS

### SUBPART 110.05—APPLICATION

Section 110.05–1 (a) is amended by revising Table 110.05–1 (a) to read as follows:

§ 110.05–1 *Vessels subject to the requirements of this subchapter.* (a) * * *

TABLE 110.05–1 (a)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [2] [4] or Subchapter T—Small Passenger Vessels [2] [4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [2] [3] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [2] [3] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers or an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[5] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[5] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[5] | None. |
| Non-self-propelled | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[5] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146,[5] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.

[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

(R. S. 4405, as amended, 4462, as amended, 46 U. S. C. 375, 416. Interprets or applies R. S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, as amended, sec. 2, 54 Stat. 1028, as amended, sec. 3, 70 Stat. 152, 153, sec. 3, 68 Stat. 675; 46 U. S. C. 361, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 366, 395, 363, 369, 367, 1333, 463a, 390b, 50 U. S. C. 196. E. O. 10402, 17 F. R. 9917; 3 CFR, 1952 Supp.)

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**Subchapter N—Explosives or Other Dangerous Articles or Substances and Combustible Liquids on Board Vessels**

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

SUBPART—GENERAL REGULATIONS

1. Section 146.02–12 is amended by changing paragraph (a) to read as follows:

§ 146.02–12 *Inspection of cargo.* (a) On all vessels, other than barges and magazine vessels storing explosives, an inspection of cargoes of explosives or other dangerous articles or substances shall be ordered by the master of the vessel during a voyage to insure that such cargo is carried with safety and that no damage caused by shifting cargo, spontaneous heating, leaking or sifting of containers or from other causes has been sustained since loading and stowage. On such vessels that have dangerous cargo stowed on board for a period exceeding twenty-four (24) hours temperature readings shall be taken at proper intervals and such temperatures recorded and retained for one year as a record for each voyage. When any cargo is discovered to be in a dangerous condition from leakage, sifting, heating, wetting or other causes, such condition shall be corrected in such manner as the judgment of the master may dictate. All unusual circumstances divulged during inspection of dangerous cargo and any action taken as a result thereof shall be a subject for log entry.

* * * * *

2. Section 146.02–22 is amended by changing paragraph (a) to read as follows:

§ 146.02–22 *Preservation of records.* (a) Where the regulations in this part require the preparation of shipping orders, manifests, or other shipping documents, cargo lists, cargo stowage plans, reports and any other papers or records, it shall be the duty of the owner of the vessel to preserve such records or copies thereof in his office or place of business in the United States for a period of one year. Persons or corporations chartering or engaging or contracting for the use of vessels under such terms and conditions that they have full and exclusive control of the management and operating of such vessels shall be subject to the same requirement for preservation of records as are imposed upon owners of vessels by this section and in such cases the owners shall not be required to preserve such records.

* * * * *

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DEFINITIONS OF WORDS AND TERMS CONTAINED WITHIN THE REGULATIONS IN THIS SUBCHAPTER

Section 146.03–31 is amended to read as follows:

§ 146.03–31 *STC and NRC.* The term "STC" means "single trip container" that must not be reused for shipment of dangerous articles unless approved by the Interstate Commerce Commission. The term "NRC" means "nonreusable container" that must not be reused for shipment of dangerous articles.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interprets or applies sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—LIST OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES CONTAINING THE SHIPPING NAME OR DESCRIPTION OF ARTICLES SUBJECT TO THE REGULATIONS IN THIS SUBCHAPTER

Section 146.04–5 is amended by adding, changing or canceling certain items as follows:

§ 146.04–5 *List of explosives and other dangerous articles and combustible liquids.*

| Article | Classed as— | Label required [1] |
|---|---|---|
| *Items Added* | | |
| * * * | * * * | * * * |
| Actuating cartridges, explosive, fire extinguisher or valve | Expl. C | |
| * * * | * * * | * * * |
| Carbon dioxide gas, liquefied (mining device) | Noninf. G | Green gas. |
| * * * | * * * | * * * |
| Dimethylhexane dihydroperoxide, dry | Inf. S | Yellow. |
| Dimethylhexane dihydroperoxide, wet (with at least 30 percent of water by weight). | Inf. S | Yellow. |
| * * * | * * * | * * * |
| Methyl bromide and chlorpicrin mixture, liquid (see: Methyl bromide, liquid). | Pois. B | Poison. |
| * * * | * * * | * * * |
| Peroxides, organic, solution, liquid, N. O. S (see: Peroxides, organic, liquid, N. O. S.). | Oxy. M | Yellow. |
| * * * | * * * | * * * |
| Pyroforic solutions (see: Pyroforic fuel) | Inf. L | Red. |
| * * * | * * * | * * * |
| *Items Changed* | | |
| * * * | | |
| *Smokeless powder for cannon or small arms* (see: "Propellant explosives, Class A"). | | |
| * * * | | |
| *Canceled* | | |
| Bone, chipped (heat treated) | Haz | |
| Camphor (crude, refined or synthetic) | Haz | |
| Cork, granulated | Haz | |
| Cork, ground | Haz | |
| Fiberboard scrap (*when dry, clean and free from oil*) (see: "Paper scrap"). | Haz | |
| Fire extinguisher actuating cartridges | Expl. C | |
| Fish oils | Haz | |
| *Lead type dross* | No restrictions | |
| Manganese dioxide | Haz | |
| *Resin | Haz | |
| Shellac, raw | Haz | |
| Stick lac (see: "Shellac, raw") | Haz | |

[1] Unless otherwise exempt by the provisions of the detailed regulations.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interprets or applies sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—SHIPPER'S REQUIREMENTS RE: PACKING, MARKING, LABELING AND SHIPPING PAPERS

1. Section 146.05–12 is amended by changing paragraph (c) to read as follows:

§ 146.05–12 *Originating shipping order, transfer shipping paper.* * * *

(c) A shipper or his authorized agent or representative shall not tender to an initial carrier vessel partial deliveries of a shipment of explosives or other dangerous articles or substances and combustible liquids, except under cover of a delivery paper (known as a delivery receipt or dock receipt) which paper shall show all the information as required for an originating shipping order in paragraph (f) of this section. Delivery receipts covering either full or partial deliveries shall be furnished at least in duplicate and after acknowledgment, one copy shall be retained for one year by the vessel operator. Unit deliveries of the same substance requiring more than eight (8) hours of normal continuous operation to effect complete delivery shall not be construed to be partial deliveries.

2. Section 146.05–13 is amended by changing paragraph (e) to read as follows:

§ 146.05–13 *Originating export shipping paper.* * * *

(e) A shipper or his authorized agent or representative shall not offer to an initial carrier vessel partial deliveries of a shipment of explosives or other dangerous articles except under cover of a dock receipt or other partial delivery receipt, which receipt shall show all the information as required for the originating shipping order. Delivery receipts cover-

ing such shipments shall be furnished in duplicate and after acknowledgment one copy shall be retained for one year by the vessel operator. Separate delivery receipts shall accompany each partial delivery.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S .C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—VESSEL'S REQUIREMENTS, RE; ACCEPTANCE, HANDLING, STOWAGE, ETC.

1. Section 146.06–8 is amended to read as follows:

§ 146.06–8 *Handling on board vessels.* Explosives or other dangerous articles or substances shall be handled on board vessels in conformity with the provisions of the detailed regulations preceding each table of the various classifications and provisions set forth for the particular substances as shown in the tables: *Provided, however,* That railroad vehicles, highway vehicles, vans, or portable containers loaded with any permitted explosives or other dangerous articles or substances to be transported on board a vessel constructed or converted as a trainship, trailership, containership, or combination thereof shall be handled on board the vessel in accordance with the provisions of Subpart 146.07. Highway or railroad vehicles loaded with permitted explosives or other dangerous articles or substances shall be handled on ferry vessels in accordance with the provisions of Subpart 146.08.

2. Section 146.06–9 is amended by changing paragraphs (c), (d), and (e) to read as follows:

§ 146.06–9 *Stowage on board vessels.* * * *

(c) Explosives of different classes or characteristics shall not be stowed together in the same compartment or magazine except as indicated in the chart in § 146.20–90, and the detailed regulations shown in §§ 146.20–1 to 146.20–300. Explosives and other dangerous articles or substances shall not be stowed together in the same hold or compartment except as indicated in the detailed regulations preceding each table of the various classifications and the provisions set forth for the particular substances as shown in the tables.

(d) The provisions of this section shall not apply to railroad vehicles, highway vehicles, vans or portable containers in which are loaded any permitted explosives or other dangerous articles, which are provided for in Subpart 146.07.

(e) The provisions of this section shall not apply to railroad and highway vehicles in which are loaded any permitted explosives or other dangerous articles in compliance with the I. C. C. regulations governing such loading, or combustible liquids when loaded in compliance with the regulations in this part, when carried on board a ferry vessel in accordance with the provisions of Subpart 146.08.

3. Section 146.06–12 is amended to read as follows:

§ 146.06–12 *Dangerous cargo manifest or list required.* All cargo vessels transporting or storing explosives or other dangerous articles or substances as cargo shall have on board during the period of transportation or storage a manifest or list upon which is correctly described every article as defined by the regulations in this part. Passenger vessels shall in addition show every article of combustible liquids in outside containers that is on board the vessel as cargo. This record may be referred to as "Dangerous Cargo Manifest" or "Dangerous Cargo List".

4. Section 146.06–16 *Completeness of manifest or list* is deleted.

5. Section 146.06–18 is amended to read as follows:

§ 146.06–18 *Record copy of manifest or list.* Owners, charterers or agents of vessels transporting or storing explosives or other dangerous articles or substances, and combustible liquids, as cargo, shall retain ashore for one year a copy of the dangerous cargo manifest or list and shall produce said manifest or list in accordance with the provisions of § 146.02–22.

6. Section 146.06–19 is amended to read as follows:

§ 146.06–19 *Cargo stowage plan or cargo stowage list.* Vessel owners, charterers or agents shall cause to be prepared a cargo stowage plan or cargo stowage list covering each ocean going voyage of any domestic cargo vessel transporting explosives or other dangerous articles or substances and of any domestic passenger vessel transporting such explosives or other dangerous articles or substances or combustible liquids in outside containers. The cargo stowage plan or cargo stowage list shall show in all necessary detail the exact location of the stowage of such explosives, articles or substances. The descriptive name thereof, as given in the commodity list in § 146.04–5, shall be the name used to identify these explosives or other dangerous articles or substances. Trade names, marks or other designations shall not be used to identify the dangerous cargo shown upon the stowage plan or list. When articles defined by the regulations in this part as dangerous are stowed in a compartment in which other cargo not of a dangerous nature is stowed, such other cargo that is stowed nearest adjacent to the dangerous articles of cargo shall be accurately described and identified on the stowage plan or list. The serial numbers of railroad vehicles, highway vehicles, vans or portable containers containing no dangerous cargo shall be considered sufficient identification in the case of vessels covered by Subpart 146.07. One copy of the stowage plan or list shall be retained ashore for one year and shall be produced in accordance with the provisions of § 146.02–22.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—RAILROAD VEHICLES, HIGHWAY VEHICLES, VANS OR PORTABLE CONTAINERS LOADED WITH EXPLOSIVES OR OTHER DANGEROUS ARTICLES AND TRANSPORTED ON BOARD OCEAN VESSELS

1. The title for this subpart is amended to read as set forth above.

2. This subpart, consisting of §§ 146.07–1 to 146.07–8, inclusive, is canceled and a new Subpart 146.07 is added to read as follows:

Sec.


146.07–1 Applicability and definitions.
146.07–5 Permitted shipments.
146.07–10 Tank containers.
146.07–15 Acceptance on board vessels.
146.07–20 Certification.
146.07–25 Marking and placarding.
146.07–30 Inspection.
146.07–35 Exemption of railroad and highway vehicles, vans or portable containers from detailed handling or stowage requirements.
146.07–40 Stowage on board vessels.


AUTHORITY: §§ 146.07–1 to 146.07–40 issued under R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.

§ 146.07–1 *Applicability and definitions.* (a) The regulations in this subpart apply to railroad vehicles, highway vehicles, vans and portable containers in which are loaded any permitted explosives or other dangerous articles or substances, as defined in this part, when transported, carried or conveyed on board a vessel constructed or converted as a trainship, trailership or containership, or combination thereof. The regulations in this subpart do not apply to railroad or highway vehicles loaded with explosives or other dangerous articles or substances transported on board a railroad car ferry or highway vehicle ferry, or carfloat, or to vans, portable containers or portable tanks carried as cargo on dry cargo vessels.

(b) For purposes of the regulations in this subpart the following definitions apply:

(1) A railroad vehicle is a cargo carrying body or tank permanently attached to an underframe and wheels (box car, tank car, etc.) which is loaded, stowed and discharged as a unit.

(2) A highway vehicle is a cargo carrying body or tank permanently attached to the chassis and wheels which is loaded, stowed and discharged as a unit.

(3) A van is a cargo carrying body other than a tank container which is designed and constructed to be removed from a chassis and wheels for water transportation. It is loaded and discharged by a "lift on-lift off" method.

(4) A portable container is a cargo carrying unit other than a "van" which is designed to be loaded or discharged by a "lift on-lift off" method. Portable containers shall be ICC specification portable containers (ICC–51, ICC–60) and/or shall be approved by the Commandant, United States Coast Guard.

(5) A trainship is a vessel other than a railroad car ferry or carfloat designed to transport railroad vehicles.

(6) A trailership is a vessel other than a highway vehicle ferry or carfloat designed to transport highway vehicles.

(7) A containership is a vessel designed to transport vans or portable containers.

§ 146.07–5 *Permitted shipments.* (a) Railroad vehicles, highway vehicles, vans or portable containers in which are loaded any permitted explosives or other dangerous articles or substances may be transported, carried or conveyed on board a trainship, trailership, or containership, or combination thereof, provided there is compliance with the regulations in this subpart.

(b) Railroad vehicles, highway vehicles, vans or portable containers in which are loaded explosives or other dangerous articles or substances or combustible liquids shall not be transported, carried or conveyed on board passenger vessels unless such items are specifically permitted by the regulations in this part to be transported, carried or conveyed on board passenger vessels, and provided there is compliance with the regulations in this subpart.

(c) Containers and packages of explosives, inflammable (flammable) liquids, inflammable (flammable) solids, oxidizing materials, corrosive liquids, compressed gases, poisons, and hazardous articles shall be so braced and secured in accordance with Interstate Commerce Commission Regulations (49 CFR Parts 71–78) for the vehicle concerned as to prevent movement within the railroad vehicle, highway vehicle, van or portable container in which they are being transported. Containers having valves or other fittings must have the valves or fittings protected and be so loaded that there will be a minimum likelihood of damage thereto during transportation. Containers marked with stowage instructions such as "This side up" or "This end up" shall be so stowed.

(d) Railroad vehicles, highway vehicles, vans and portable containers equipped with refrigerating or heating equipment using an inflammable (flammable) liquid or gas as fuel, and having such fuel in the fuel tank shall be transported only "On deck". Such equipment may be operated on board the vessel when the "On deck" stowage is provided. Vehicles stowed "On deck" may be refueled under supervision of an officer of the vessel who shall ensure that adequate safety precautions are observed. If the equipment is secured, and the fuel tank completely drained, the railroad vehicle, highway vehicle, van or portable container may be stowed in accordance with the requirements of this subpart.

(e) All of that portion of the lading of any railroad vehicle, highway vehicle, van, or portable container which consists of explosives or other dangerous articles shall be contained entirely within its body or within the horizontal outline thereof, without overhang or projection of any part of the load, and if such railroad vehicle, highway vehicle, van, or portable container has a tailboard or tailgate, it shall be closed and secured in place during such transportation.

§ 146.07–10 *Tank containers.* (a) Railroad or highway vehicles to which is attached a tank containing any explosives or other dangerous articles or substances shall not be offered or accepted for transportation on board any vessel specifically covered by the regulations in this subpart unless such articles or substances are permitted by the regulations in this part to be carried on board a vessel, and provided there is compliance with the regulations in this subpart.

(b) This section does not apply to tank containers removed from the vehicle chassis or underframe. Such containers shall be considered portable containers, and the materials, design, construction and method of handling shall be approved by the Commandant of the United States Coast Guard.

(c) Railroad or highway vehicles to which is attached a tank, or portable tank containers, which previously contained a substance defined as dangerous by the regulations in this part, shall be transported in accordance with § 146.27–100.

§ 146.07–15 *Acceptance on board vessels.* (a) The master, owner, charterer, agent or other person in charge of the vessel shall require the shipper or his agent, or the delivering carrier, or the driver of the vehicle to furnish a copy of the shipper's shipping order, shipping paper, bill of lading, manifest or other memorandum, or a waybill prepared from information furnished in the shipper's shipping order bearing the certification required by § 146.07–20 before accepting any railroad or highway vehicles, vans or portable containers in which are loaded explosives or other dangerous articles or substances. This shipping paper shall have entered upon it the proper and definite name of the commodity or commodities contained therein according to § 146.04–5, the total quantity by weight or volume, the prescribed label when required for the outside container of such article, the name and addresses of the consignor and consignee, and the identification number of the vehicle, van or portable container. In lieu of the consignee's name shipping marks may be used. The Dangerous Cargo Manifest or List (§ 146.06–12) shall be compiled from this information.

(b) The master or other person in charge of the vessel shall assign an officer of the vessel to supervise the acceptance and stowage of railroad or highway vehicles, vans or portable containers containing permitted explosives or other dangerous articles or substances. This officer shall examine the vehicles or containers for signs of leaking, damage to the container, or sifting of contents. For tanks he shall examine dome covers to ascertain if they are fitted securely; check valves, piping and the tanks for leakage or excess residue of lading. Any vehicle or container found to be damaged, leaking or sifting, or having excess residue of lading adhering thereto shall not be accepted for transportation.

§ 146.07–20 *Certification.* The shipping order or other memorandum furnished by the shipper, agent or delivering carrier shall bear the following certificate of the shipper or his duly authorized agent:

This is to certify that the above named articles are properly described, packed and marked, and in proper condition for transportation according to the regulations prescribed by the Interstate Commerce Commission and Commandant of the United States Coast Guard.

§ 146.07–25 *Marking and placarding.* Railroad vehicles, highway vehicles, vans or portable containers in which are loaded explosives or other dangerous articles in any amount shall be marked with the "Explosives", "Dangerous", "Poison Gas", or "Radioactive Material" placard as described in the Interstate Commerce Commission regulations pertaining to each means of transportation, and shall carry an identification number.

§ 146.07–30 *Inspection.* Railroad vehicles, highway vehicles, vans or portable containers containing explosives or other dangerous articles or substances destined for transportation by vessel may be opened by a duly authorized representative of the Coast Guard for inspection to determine compliance with regulations applicable to such shipments.

§ 146.07–35 *Exemption of railroad and highway vehicles, vans or portable containers from detailed handling or stowage requirements.* (a) Detailed regulations governing handling and stowage of permitted explosives, inflammable (flammable) liquids, inflammable (flammable) solids, oxidizing materials, corrosive liquids, compressed gases or poisons on board vessels do not apply to such substances loaded in railroad or highway vehicles, vans or portable containers provided such substances remain within the vehicle, van or portable container, and are certified in accordance with § 146.07–20. Permit requirements for explosives (§ 146.20–85, 146.20–87) and ammonium nitrate (§ 146.22–30) are applicable.

(b) Detailed regulations governing handling and stowage of hazardous articles or combustible liquids on board vessels do not apply to such articles or substances loaded in railroad or highway vehicles, vans or portable containers, provided such articles or substances are certified on the shipping paper as being properly described by name, and as being packed, marked and in proper condition for transportation according to the regulations in this part.

§ 146.07–40 *Stowage on board vessels.* Railroad or highway vehicles, vans or portable containers in which are loaded any permitted explosives or other dangerous articles or substances which are certified on the shipping papers as being described, packed, marked and labeled in accordance with Interstate Commerce Commission regulations, or hazardous articles which are described, packed, and marked in accordance with the regulations in this part, shall when taken on board the vessel be stowed in accordance with the following provisions:

(a) *Explosives.* Plans and specifications for highway vehicles, vans and portable containers proposed to be used for transportation of explosives, for which a permit is required by §§ 146.20–85 and 146.20–87, shall be specifically

approved by the Commandant of the Coast Guard. Vehicles or other containers loaded with permitted explosives are not required to be given magazine stowage provided the vehicles or containers form a complete magazine. Such vehicles, vans, or portable containers may be stowed "Under deck" and away from all sources of heat, and not overstowed. No vehicle, van or container containing any other dangerous articles that require a placard by this subpart shall be stowed within a distance of 100 feet or unless separated by two continuous permanent decks or bulkheads from vehicles, vans or containers loaded with Class A or Class B explosives. Blasting caps or other detonators in any quantity shall not be transported in the same vehicle, van or portable container with any other explosives. In addition to the usual securing means provided, vehicles or containers loaded with explosives shall be anchored by an additional securing means satisfactory to the United States Coast Guard and the master of the vessel so as to completely secure the entire unit to prevent any movement of the body thereof.

(b) *Other dangerous articles.* Vehicles, vans or portable containers loaded with any other permitted dangerous article shall be stowed on board the vessel in accordance with the stowages required in the tables for the substances within the vehicles. Such stowages are not feasible in each instance for railroad or highway vehicles, vans, or portable containers stowed below deck on vessels; and, for the purpose of adopting these stowages to the conditions incident to transportation of railroad and highway vehicles, vans, and portable containers in this method of transportation, a conversion table is shown in paragraph (c) of this section. Permitted stowages as shown in Tables A through K for the substances loaded within the vehicles may be converted in accordance with this conversion table. When so converted the stowage in columns 2 and 3 may be utilized in lieu of the stowage indicated under column 1.

(c) *Conversion table of stowage.*

| (1) | (2) | (3) |
|---|---|---|
| Substances required by the tables forming part of these regulations to be stowed as follows: | May be stowed in the following locations when contained in railroad vehicles or highway vehicles: | Trailer vans or containers when stacked: |
| On deck in open | Weather deck | Weather deck. |
| On deck protected | Weather deck or first deck below | Weather deck or top stowed. |
| On deck under cover | Weather deck or first deck below | Weather deck or top stowed. |
| Tween decks readily accessible | Weather deck or first deck below | Weather deck or top stowed. |
| Tween decks | Any deck | Any deck. |
| Cargo hatch trunkway | Any deck | Any deck. |
| Under deck | Any deck | Any deck. |
| Under deck but not overstowed | Any deck | Any deck. |
| Under deck away from heat | Any deck but at least 35 feet from heat bulkhead. | Any deck but at least 35 feet from heat bulkhead. |

(d) *Compatibility of other dangerous articles.* No vehicle, van or portable container loaded with dangerous articles requiring a placard under this subpart shall be stowed adjacent to a placarded vehicle, van or container loaded with other dangerous articles deemed to be incompatible by this part, in either a fore, aft, athwartship or vertical direction unless separated by an intervening steel deck or bulkhead.

SUBPART—RAILROAD OR HIGHWAY VEHICLES LOADED WITH DANGEROUS SUBSTANCES AND TRANSPORTED ON BOARD VESSELS

This subpart, consisting of §§ 146.08–1 to 146.08–11, inclusive, is canceled and a new Subpart 146.08 is added to read as follows:

Sec.


146.08–1 Prohibited articles.
146.08–5 Permitted articles.
146.08–10 Tank containers.
146.08–15 Acceptance of railroad vehicles on board ferry vessels.
146.08–20 Acceptance of highway vehicles on board ferry vessels.
146.08–25 Empty tank containers.
146.08–30 Exemption of railroad and highway vehicles from detailed handling or stowage requirements.
146.08–35 Stowage of railroad or highway vehicles.
146.08–40 Control of highway vehicle.
146.08–45 Private passenger type motor vehicles (automobiles).
146.08–50 Cylinders laden in highway vehicles.
146.08–55 Vehicles having refrigerating or heating equipment.


AUTHORITY: §§ 146.08–1 to 146.08–55 issued under R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.

§ 146.08–1 *Prohibited articles.* Railroad or highway vehicles in which are loaded any explosives prohibited by subsection 3 of R. S. 4472, as amended (46 U. S. C. 170), or any other explosive or other dangerous article or substances and combustible liquids not permitted by the regulations in this part shall not be accepted, transported, carried or conveyed on board any railroad car ferry or highway vehicle ferry.

§ 146.08–5 *Permitted articles.* (a) Railroad or highway vehicles in which are loaded any permitted explosives or other dangerous articles or substances as defined in this subchapter may be transported, carried or conveyed on board a railroad car ferry or highway vehicle ferry provided there is compliance with the provisions of this subpart.

(b) Railroad or highway vehicles loaded with explosives or other dangerous articles or substances, and combustible liquids shall not be transported, carried or conveyed on board a passenger ferry vessel unless such explosives or other dangerous articles or substances, and combustible liquids are specifically permitted by the regulations in this part to be transported, carried or conveyed on board such vessels and provided there is compliance with the provisions of this subpart.

§ 146.08–10 *Tank containers.* A railroad or highway vehicle to which is attached a tank containing any explosives or other dangerous articles or substances as defined in this subchapter shall not be offered, transported, carried or conveyed on board any passenger ferry vessel unless such explosives or other dangerous articles or substances are specifically permitted by the regulations in this part to be transported, carried or conveyed on board such vessel and provided there is compliance with the provisions of this part.

§ 146.08–15 *Acceptance of railroad vehicles on board ferry vessels.* (a) The master, owner, charterer, agent or other person in charge of the vessel shall require the shipper or his agent or the delivering carrier to furnish a copy of the shipper's shipping order or a waybill prepared from information furnished in the shipper's shipping order before accepting any railroad vehicles in which are loaded explosives or other dangerous articles or substances as defined by the regulations in this part. This shipping paper shall have entered upon it the amounts and the true shipping name of the contents of the vehicle, and the names of the consignor and the consignee. In lieu of the consignee's name, shipping marks may be substituted. A transfer shipping paper shall show sufficient information to identify the preceding shipping paper.

(b) The master or other person in charge of the vessel shall assign an officer of the vessel to supervise the acceptance and stowage of railroad vehicles containing explosives or other dangerous articles or substances and combustible liquids which are permitted by the regulations in this part to be transported on board a vessel. This officer shall examine all railroad vehicles for signs of leaking or sifting of contents. For tanks, he shall examine dome covers to ascertain they are fitted securely in place; check the valves, piping, and the tank for leakage; check the tank for any excess residue of lading adhering thereto. Any vehicles found to be leaking or which show sifting of contents or having excess residue of lading adhering thereto shall not be accepted for transportation.

§ 146.08–20 *Acceptance of highway vehicles on board ferry vessels.* (a) The vessel owner, master, or officer in charge of accepting highway vehicles on board a vessel shall require the operator of the vehicle to present a shipping paper which describes the lading of the vehicle in accordance with the provisions of paragraph (c) of this section.

(b) The owner or master of a vessel shall assign an officer of the vessel or other competent person to supervise the acceptance and stowage of highway vehicles containing explosives or other dangerous articles or substances and combustible liquids that are permitted by the regulations in this part to be transported on board a vessel.

(c) Highway vehicle carrier's statement: The person in charge of a highway vehicle loaded with permitted explosives or other dangerous articles or substances and combustible liquids that it is desired to transport on board a vessel shall deliver to the master, his representative or other person in charge a shipping paper or true copy thereof

describing the articles of lading within the vehicle. The information given shall include at least all of the following:

(1) Date.

(2) Name of highway vehicle owner.

(3) Name of operator of vehicle.

(4) Identification of vehicle (by mark or number or registration if a motor vehicle).

(5) Description of explosives or other dangerous articles and combustible liquids laden in the vehicle. This description shall be in accordance with the terms used in the regulations in this part and shall state the approximate weight or quantity of the dangerous articles within the vehicle and the shipping name of the dangerous substances in accordance with the commodity list herein.

(6) Such shipping paper shall bear the following certification over the written or stamped facsimile signature of the vehicle owner or his agent:

"This is to certify that the above statement accurately describes the articles within this vehicle in accordance with the information furnished by the shipper thereof, and to the best of my knowledge there are no articles within this vehicle that are not permitted to be transported on board the vessel utilized in accordance with regulations of the Commandant of the Coast Guard."

§ 146.08–25 *Empty tank containers.* For conditions governing transportation of empty tanks, forming a part of railroad or highway vehicles and which recently contained a substance defined as dangerous by the regulations in this part, see § 146.27–100.

§ 146.08–30 *Exemption of railroad and highway vehicles from detailed handling or stowage requirements.* (a) Detailed regulations governing handling and stowage of permitted explosives, inflammable liquids, inflammable solids, oxidizing materials, corrosive liquids, compressed gases or poisons on board vessels do not apply to such substances loaded in railroad and highway vehicles, provided such substances remain within the vehicle and are certified as being in proper condition for transportation according to the regulations of the Interstate Commerce Commission in effect at the time of shipment.

(b) Detailed regulations governing handling and stowage of hazardous articles or combustible liquids on board ferry vessels do not apply to such articles or substances loaded in railroad or highway vehicles, provided such articles or substances are properly described by name and packed and marked and in proper condition for transportation according to the regulations in this part.

§ 146.08–35 *Stowage of railroad or highway vehicles.* (a) Highway vehicles in which are loaded any permitted explosives or other dangerous articles or combustible liquids which are certified by the vehicle operator in accordance with the provisions of this subpart shall when taken on board a ferry vessel be stowed in accordance with the provisions for "Ferry stowage (AA)" as shown in § 146.03–34 (k). Highway vehicles containing carbon dioxide, solid, either as cargo or as a refrigerant shall be stowed in a well-ventilated location.

(b) Railroad vehicles in which are loaded any permitted explosives or other dangerous articles or substances which are certified on the shipping papers as being described, packed, marked, and labeled in accordance with the ICC regulations, or hazardous articles packed, marked, and labeled in accordance with the regulations in this part may be stowed in any location on the car deck away from heat on board a railroad car ferry operating as a cargo vessel. Railroad vehicles containing carbon dioxide, solid, either as cargo or as a refrigerant, shall be stowed in a well-ventilated location.

(c) Railroad vehicles in which are loaded any permitted explosives or other dangerous articles or substances which are certified on the shipping papers as being described, packed, marked, and labeled in accordance with the ICC regulations, or combustible liquids or hazardous articles certified on the shipping papers as being described, packed, marked, and labeled as required by the regulations in this part shall be stowed in a location on the car deck in accordance with the provisions of "Ferry stowage (BB)" on board a railroad car ferry operating as a passenger vessel. (See § 146.03–34 (l).) Railroad vehicles containing carbon dioxide, solid, either as cargo or as a refrigerant, shall be stowed in a well-ventilated location.

§ 146.08–40 *Control of highway vehicle.* (a) The operator or person in charge of a highway vehicle containing any of the permitted dangerous articles as defined by the regulations in this part, when entering upon or while being transported upon any vessel, shall observe the following rules:

(1) Deliver to the vessel's representative the vehicle carrier's statement covering the lading of the vehicle as required by § 146.08–20.

(2) Drive the vehicle to the location indicated by the vessel's representative.

(3) Securely set the brakes of the vehicle to prevent movement.

(4) Shut off the motor and do not restart same until the vessel has completed its voyage and docked.

(5) Cut off all vehicle lights and do not relight same until the vessel has completed its voyage and docked.

(6) Remain with the vehicle.

(7) Make no repairs or adjustments to the vehicle while on board the vessel.

(8) Observe any instructions given by the vessel's representative during the voyage, or during "drive on" or "drive off" operations.

(b) Smoking by any person within the vehicle is prohibited.

§ 146.08–45 *Private passenger type motor vehicles (automobiles).* Such vehicles shall not be offered or accepted for transportation on board passenger-carrying ferries while having within the automobile any permitted explosives (except permitted fireworks or small arms ammunitions) unless complying with all the provisions of the regulations in this part regarding such substances. Such automobiles shall not have within the vehicle any other dangerous articles or substances or combustible liquid as defined in the regulations in this part when being transported for hire except in compliance with the regulations in this part: *Provided, however,* That such vehicles are exempt from the provisions of the regulations in this part with respect to descriptions, descriptive name, packing, marking, labeling, and certification when having in the vehicle any permitted fireworks or small arms ammunition or any other dangerous articles or substances or any combustible liquid in tightly closed containers, provided such substances are not being carried by the automobile for hire. Such vehicles, their owners or operators shall, when entering upon and while being transported and when leaving a vessel, conform with all of the provisions of the regulations shown in the table in § 146.27–100 applying to the transportation of such vehicles.

§ 146.08–50 *Cylinders laden in highway vehicles.* Cylinders of compressed gas of the type required by the regulations in this part to have valve protection cap fitted in place on the cylinder may be transported on board ferry vessels without having the valve protection cap in place when said cylinders are laden in highway vehicles and are not removed from the vehicles while on board the vessel.

§ 146.08–55 *Vehicles having refrigerating or heating equipment.* (a) Vehicles, fitted with refrigerating or heating equipment using an inflammable liquid or gas or diesel oil as fuel, may be accepted for transportation, and such refrigerating or heating equipment may be operated while the vehicle is on board a vessel, provided the installation conforms with the following requirements:

(1) The installation is rigidly mounted and free of any movement other than normal vibration of operation.

(2) A shut-off control, easily accessible, is fitted to the fuel and electrical supply of refrigerating or heating equipment.

(3) The fuel storage tank, the fuel lines and the carburetor or other device shall be tight and show no signs of leakage.

(b) Refrigerating or heating equipment not fitted with automatic starting and stopping devices shall, if the vehicle operator desires the equipment to operate while on board the vessel, be started before the vehicle is taken on board. It may continue in operation while the vehicle is on the vessel, but if for any cause the motor ceases to operate it shall not be restarted until after the vehicle leaves the vessel.

(c) Vessels on voyages exceeding thirty (30) minutes duration shall provide a stowage for vehicles having refrigerating or heating equipment operated by internal combustion engines as will permit ready diffusion of exhaust gases to the open air. Passenger vehicles shall not be stowed in a position adjacent to vehicles operating internal combustion motors as would expose the occupants thereof to excessive concentrations of exhaust fumes from such motors.

(d) The master or person in charge of a vessel may, when he deems it necessary for any cause, require the vehicle operator to stop the operation of refrigerating or heating equipment attached to a vehicle while on board the vessel.

SUBPART—CARGO HANDLING AND STOWAGE DEVICES, U. S. COAST GUARD CONTAINER SPECIFICATIONS

1. Section 146.09–2 (b) is amended by adding subparagraph (5) to read as follows:

§ 146.09–2 *Magazines, construction of.* * * *

(b) * * *

(5) If the bulkheads forming the sides of a magazine are to be constructed directly against the ship's side and battens are fitted, then 5/16" plywood may be used, provided the plywood is fastened to furring strips of not less than 1" x 3", spaced not more than 18" apart, and securely fastened vertically to the battens.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interprets or applies sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING EXPLOSIVES

1. Section 146.20–11 is amended by changing paragraph (w) to read as follows:

§ 146.20–11 *Class C explosives.* * * *

(w) Actuating cartridges, explosive, fire extinguisher or valve consist of a small metal or fiber housing containing a small amount of initiating explosive and a propellant and are used to actuate valves on remotely controlled fire extinguishers or other apparatus.

2. Section 146.20–23 is amended by changing paragraph (a) (1) to read as follows:

§ 146.20–23 *Stowage of explosives in magazines adjacent to other dangerous articles.* (a) * * *

(1) Dynamite, commercial boosters and other non-priming, non-initiating types of explosives which are compatible with dynamite may be stowed in a magazine located in the same hold or compartment with nitro carbo nitrate or in holds or compartments adjacent to nitro carbo nitrate.

3. Section 146.20–29 is amended by adding a new paragraph (d) to read as follows:

§ 146.20–29 *Preparation of magazines, decks, hatches and holds before handling explosives.* * * *

(d) Any deck loads over which explosives must be passed shall be limited in height to that of the hatch coaming, bulwark or three feet, whichever is greater.

4. Section 146.20–35 is amended by changing paragraphs (b), (c), and (e) to read as follows:

§ 146.20–35 *Handling explosives.* * * *

(b) Packaged Class A explosives shall be loaded and discharged from a vessel by hand, by using a regulation chute and mattress or by means of a mechanical hoist, pallet, skipboard, tray or pieplate, fitted with cargo net or sideboards. The maximum load handled in a pallet skipboard, tray or pieplate shall not exceed 2,400 pounds plus 10 percent. Rope net slings with pallet, skipboard, pieplate or similar base shall be so loaded that when lifted a minimum displacement of items shall occur and the cargo net shall completely encompass the load except on its topside. Not more than one third of the vertical dimension of any package shall extend above the sideboard of the tray. Drafts of explosives shall be hoisted and lowered carefully and only deposited or lowered on to a mattress.

(c) Blasting caps, detonating fuzes, fulminate of mercury and other initiating or priming explosives as defined in this subpart shall be considered as constituting a distinct class of dangerous explosives and they shall be handled with extreme care. A chute and mattress shall not be used when loading or discharging this class of explosives.

* * * * *

(e) Transfer trucks equipped with a mechanical means of propulsion shall not be used when handling any high explosives, low explosives, black powder or propellant explosives on board a vessel.

5. Section 146.20–45 is amended by deleting the present wording and rewording the text as follows:

§ 146.20–45 *Smoking.* (a) Smoking is prohibited on or near any vessel loading or unloading explosives at a waterfront facility. Smoking areas may be designated by the Coast Guard officer having jurisdiction provided such areas are located at a safe distance from the vessel. "No smoking" signs shall be posted during operations of handling, loading or unloading such cargo. At least one "No Smoking" sign shall be located on the pier at a reasonable distance from the vessel when such handling, loading or unloading is taking place.

(b) Smoking is prohibited on or near any vessel handling, loading or unloading explosives at an explosives anchorage, except the Coast Guard officer having jurisdiction may, with concurrence of the master or person in charge of the vessel, designate a compartment as a smoking area. "No smoking" signs shall be posted conspicuously outside the entrance to this compartment and in other parts of the vessel during the loading or unloading operations.

6. Section 146.20–90 is amended by changing footnote 4 in the chart (referred to in column 18) to read as follows:

§ 146.20–90 *Stowage and storage chart of explosives and other dangerous articles.* * * *

STOWAGE AND STORAGE CHART OF EXPLOSIVES AND OTHER DANGEROUS ARTICLES

* * * * *

[4] Nitro carbo nitrate may be stowed in the same hold or compartment with a magazine containing dynamite, commercial boosters and other non-priming, non-initiating types of explosives that are compatible with dynamite.

7. Section 146.20-200 *Table B—Classification: Class B; less dangerous explosives* is amended as follows:

§ 146.20-200 *Table B—Classification: Class B; less dangerous explosives*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Propellant explosives, Class B. | Propellant explosives, Class B, are solid chemicals or solid chemical mixtures which function by rapid combustion of successive layers generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Propellant explosives, Class B, include smokeless powder for small arms, smokeless powder for cannon, smokeless powder or solid propellant for rockets, jet thrust units, or other devices.<br>Black powder is not classified as a propellant explosive. (See: Black powder, § 146.20-100.)<br>Propellant explosives as prepared for shipment that are sensitive to detonation are Class A explosives. (See: Propellant explosives, Class A, § 146.20-200.)<br>Each outside container must be plainly marked: "Propellant Explosives, Class B." | No label required. | Stowage—magazine or:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Wooden barrels or kegs (ICC-19B) not over 200 lb. gr. wt.<br>Metal kegs (ICC-13) not over 150 lb. gr. wt.<br>Bundles of metal kegs (ICC-13) roped, wrapped in burlap, canvas or similar materials, securely sewed and roped, not over 100 lb. net wt.<br>Tight metal containers, not over 200 lb. gr. wt.<br>Tight wooden boxes with tight inside metal cases, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-14, 15A, 15B, 15C) with ICC approved inside containers, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12H, 23F, 39H) with ICC approved inside containers, not over 65 lb. gr. wt.<br>Authorized only for grains not less than 1 inch in diameter or 3 inches in length if tightly packed and protectively coated:<br>Wooden boxes (ICC-14, 15A, 16A) not over 300 lb. gr. wt. | Not permitted. | Not permitted. | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

8. Section 146.20-300 *Table C—Classification: Class C, relatively safe explosives* is amended as follows:

§ 146.20-300 *Table C—Classification: Class C; relatively safe explosives*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Actuating cartridges, explosive, fire extinguisher or valve. | *Used to actuate the valves on remotely controlled fire extinguishers.*<br>Do not stow in the same compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases.<br>Each outside container must be plainly marked "Actuating Cartridges, Explosive, Fire Extinguisher—Handle Carefully" or "Actuating Cartridges, Explosive, Valve—Handle Carefully". | No label required. | Stowage:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Strong wooden boxes, not over 150 lb. gr. wt.<br>Strong fiberboard boxes, not over 65 lb. gr. wt. | Stowage:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Strong wooden boxes, not over 150 lb. gr. wt.<br>Strong fiberboard boxes, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Strong wooden boxes, not over 150 lb. gr. wt.<br>Strong fiberboard boxes, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Strong wooden boxes, not over 150 lb. gr. wt.<br>Strong fiberboard boxes, not over 65 lb. gr. wt. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING INFLAMMABLE LIQUIDS

1. Section 146.21-65 is amended by changing paragraph (c) to include the following as subparagraph (28a):

§ 146.21-65 *Limited quantity shipments.* * * *

(c) * * *

(28a) Pyroforic solutions.

2. Section 146.21-100 *Table D—Classification: Inflammable liquids* is amended as follows:

§ 146.21-100 *Table D—Classification: Inflammable liquids*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Acetaldehyde (*ethyl aldehyde*). | *A clear, volatile liquid with a pungent fruity odor. Will evaporate rapidly.*<br>*Vapors when mixed with air are explosive over a very wide range of about 4% to 57%.*<br>*Flashpoint about −17° F. Boiling point 70° F.*<br>*Miscible with water.*<br>Keep cool. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5C, 5G) not over 119 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, (ICC-13A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Acetone | *A clear, colorless, liquid having a pleasant odor somewhat similar to wood alcohol. Vapors are 2 times heavier than air and when mixed with air are explosive over a range of 3% to 13% in air. Sustained inhalation of vapors in unventilated compartments is dangerous. Flashpoint about 4° F. Boiling point 133° F. Miscible with water.* | Red | Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-19A) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Acetone oils (When possessing a flashpoint at or below 80° F.) | *Oily residuum obtained as a by-product in the distillation of acetone. Flashpoint variable but usually low.* | Red. | | | | |
| Acrylonitrile | *Flashpoint about 32° F. Boiling point 173° F.* | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Alcohol or alcohol, N. O. S. (When possessing a flashpoint at or below 80° F.) | *General: These alcohols are colorless, volatile liquids about 80% as heavy as water and possessing a characteristic odor. Their vapors are heavier than air, and will form explosive mixtures over varying ranges of percentages with air.* | Red. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA)<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Alcohol, butyl | | Red. | | | | |
| Alcohol, denatured | | Red. | | | | |
| Alcohol, ethyl | | Red. | | | | |
| Alcohol, propyl | | Red. | | | | |
| Alcohol, tertiary | | Red. | | | | |
| Alcohol, wood (methanol) | | Red. | | | | |
| Butyl alcohol | | Red. | | | | |
| Cologne spirits (alcohol) | | Red. | | | | |
| Columbian spirits (wood alcohol) | | Red. | | | | |
| Extracts, liquid flavoring | | Red. | | | | |
| Isopropanol | | Red. | | | | |
| Methanol (methyl alcohol) (methyl hydrate) | | Red. | | | | |
| Rum, denatured (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |
| | • • • | • • • | • • • | • • • | • • • | • • • |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Allyl bromide | *Colorless heavy liquid having a pungent odor. Insoluble in water. Does not evaporate readily.*<br>*Fumes somewhat irritating to eyes and tissue.*<br>*Flashpoint below 80° F.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA)<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Amyl acetate (when possessing a flashpoint at or below 80° F.) | *Colorless liquid, pear or banana like odor.*<br>*Flashpoint from 70 to 90° F.*<br>*Immiscible with water.* | Red. | | | | |
| Amyl chloride | *A liquid having a straw to deep purple color.*<br>*Flashpoint 24° F.*<br>*Immiscible with water.*<br>*Vapors are 3.87 times heavier than air and form an explosive mixture with a lower range of 1.4% in air.* | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Amyl nitrite | *Yellowish, transparent volatile unstable liquid having fragrant fruity odor.*<br>*Decomposes on exposure to air, light or water.*<br>*Vapors are orange color.*<br>*Boiling point, 206° F.* 9<br>*Immiscible with water.*<br>Keep cool. Stow well away from all sources of heat. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Antifreeze compounds, liquid. (When possessing a flashpoint at or below 80° F.) | *Products added to the cooling systems (radiators) of automobiles, tractors, and to other mechanical systems to lower the freezing point of water. Among the common antifreezes are alcohol, glycerin, mixtures of both, and ethylene glycol. Flashpoint variable. Hazard similar to alcohol. Miscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC.<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 18A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Antifreeze preparations, proprietary, liquid. (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Benzene (benzol)<br>Benzol (benzene). | *A clear, colorless liquid of aromatic odor, distilled from coal tar.*<br>*Flashpoint about −12° F.*<br>*Boiling point 176° F.*<br>*Will freeze solid slightly above the freezing point of water. Therefore, will flash below its own freezing point.*<br>*Immiscible with water.*<br>*Vapors are 2.77 times heavier than air and form an explosive mixture within a range of 1.5% to 7% in air.*<br>*Vapors are poisonous and suffocating.* | Red. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-11H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-20A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lbs. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Not permitted. | Not permitted. | Not permitted. |
| Benzine<br>Coal tar light oil.<br>Petroleum ether.<br>Petroleum naphtha.<br>Naphtha.<br>(When possessing a flashpoint at or below 80° F.) | *A mixture of several of the lighter constituents of petroleum.*<br>*Flashpoint about 5° F.*<br>*Boiling point 104° to 148° F.*<br>*Immiscible with water.*<br>*Vapors are 4 to 5 times heavier than air and form an explosive mixture within a range of 2% to 5% in air.* | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Box toe gum (when possessing a flashpoint at or below 80° F.). | *A liquid cement-like solution of variable formulae used in the manufacture of shoes. It may consist of nitrocellulose, shellac, or resin dissolved in a volatile solvent.*<br>*Flashpoint variable, depending upon the solvent used.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 30 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 30 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Butyl acetate (when possessing a flashpoint at or below 80° F.). | *Colorless limpid liquid with fruity odor.*<br>*Flashpoint variable.*<br>*Vapors heavier than air.*<br>*Immiscible with water.*<br>*Lighter than water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Butyraldehyde | *Colorless liquid.*<br>*Flashpoint 80° F.*<br>*Boiling point 169° F.*<br>*Vapors about 2½ times heavier than air.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC not over 55 gal. cap.<br>(ICC-17E) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lbs. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Not permitted. | Not permitted. | Not permitted. |
| . . . | . . . | . . . | . . . | . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Cement, leather (When possessing a flashpoint at or below 80° F.) | *These cements are chemical compounds of various ingredients such as: Asphalt with petroleum distillate; cellulose nitrate in acetone; bituminous asphalt and mineral oil; raw rubber solution and gasoline; etc., all possessing similar characteristics and hazards. Vapors highly inflammable and explosive when mixed in correct proportions with air. Sustained inhalation of vapors in unventilated compartments is dangerous.* | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C) not over 55 gal. cap.<br>(ICC-17C 17E, 17H) STC not over 30 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 30 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Cement, container, liquid | | Red. | | | | |
| Cement, linoleum | | Red. | | | | |
| Cement, liquid, N. O. S. | | Red. | | | | |
| Cement pyroxylin | | Red. | | | | |
| Cement, roofing, liquid | | Red. | | | | |
| Cement, rubber (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |
| Cement, tile | | Red. | | | | |
| Cement, wallboard | | Red. | | | | |
| Coating solution | | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Cigar and cigarette lighter fluid. | A mixture of several of the lighter constituents of petroleum.<br>Flashpoint variable depending on mixture used, but less than 80° F.<br>Immiscible with water. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Coal tar distillate.....<br>Coal tar oil.<br>(When possessing a flashpoint at or below 80° F.) | *Distillates of coal tar. The lighter distillates are highly inflammable and will consist of benzene, toluene and xylene. Properties and hazards similar to "Coal tar naphtha," which see below. Immiscible with water.* | Red..... | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).....<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal.total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G), not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Coal tar naphtha.....<br>Naphtha solvent.<br>(When possessing a flashpoint at or below 80° F. but not less than 20° F.) | *Mixtures of small amounts of benzene and toluene with xylene. The crude is a dark straw colored liquid and the refined is a water white liquid. Flashpoint ranges between 60° F. and 77° F. Mixtures of vapor in air are explosive over a range of 1.5% to 8%. Vapors are heavier than air. Vapors are poisonous and suffocating. Immiscible with water.* | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Collodion | *Solution of tetranitrocellulose in ether, alcohol or other solvent. Pale yellow liquid. Flashpoint approximately 0° F. Immiscible with water.* Keep cool. | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside container:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap (ICC-17C) STC not over 55 gal. cap. (ICC-17E) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Compounds, cleaning, liquid. | *May consist of volatile inflammable solvents having low flashpoints.* | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Carbon remover, liquid | | Red. | | | | |
| Cleaning fluid or liquid | | Red. | | | | |
| Compounds, type-cleaning, liquid. | | Red. | | | | |
| Compounds, vulcanizing, liquid. | | Red. | | | | |
| Eradicators, paint or grease, liquid. (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Compounds, lacquer, paint, or varnish, etc., removing, reducing or thinning, liquid. (When possessing a flashpoint at or below 80° F.) | *Compounds which through solvent or detergent action remove old paint from surfaces.* *Exceptionally slow-drying thinners used with pyroxylin base lacquer or enamels to retard speed of drying.* *Clear liquid solvents and dilutents for the reduction of primers, surfacers, and enamels to proper working consistencies.* | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums:<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37E) STC, not over 8½ gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E), WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums:<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37E) STC, not over 8½ gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Compounds, enamel | | Red. | | | | |
| Lacquer removing, reducing and thinning compounds. | | Red. | | | | |
| Paint, lacquer and varnish removing, reducing or thinning compounds. | | Red. | | | | |
| Varnish remover or reducer. | | Red. | | | | |
| Varnish thinning compounds. (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Compounds, tree or weed killing, liquid. | *Flashpoint variable*..... | Red..... | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums:<br>(ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes:<br>(ICC-15X) WIMC not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 30 gal cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap. | Ferry stowage (AA).....<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums:<br>(ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes:<br>(ICC-15X) WIMC not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Crotonaldehyde | *This material is in the form of a clear and almost colorless liquid, having a vapor extremely irritating to the eyes, nose and throat. Easily detected odor. Flashpoint about 55° F. Vapors about 2½ times heavier than air. Inmiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC–5M) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC–17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC–42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A, 10B) not over 50 gal. cap.<br>(ICC–11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC–15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC–12A, 12B), not over 65 lb. gr. wt.<br>(ICC–12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC–21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Crude oil, petroleum (when possessing a flashpoint at or below 80° F.). | *Crude petroleum in its natural state or which has been subject only to natural weathering or settling and not blended with any other product.*<br>*A heavy, oily liquid, having color varying from green to almost black. It usually has a disagreeable odor, and varies in inflammability according to percentage of more volatile ingredients.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6, 5A, 5B, 5C, 5G) not over 150 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC not over 55 gal. cap.<br>(ICC-17E) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 150 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Not permitted | Not permitted | Ferry stowage (BB).<br>Outside containers:<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |

Table D—Classification: Inflammable liquids—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Cyclobexane | *A clear, volatile liquid having a pungent odor.*<br>*Flashpoint below 20° F.*<br>*Forms inflammable or explosive mixtures with air.*<br>*Immiscible with water.*<br>Stow well away from all sources of heat. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween docks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Cyclopentane | *Colorless liquid having organic odor.*<br>*Moderately volatile.*<br>*Flashpoint below 20° F.*<br>*Forms inflammable and explosive mixture with air.*<br>*Immiscible with water.*<br>Stow well away from all sources of heat. | Red. | | | | |
| Cyclopentane, methyl | *Colorless liquid having organic odor.*<br>*Moderately volatile.*<br>*Flashpoint below 20° F.*<br>*Forms inflammable or explosive mixtures with air.*<br>*Immiscible with water.*<br>Stow well away from all sources of heat. | Red. | | | | |
| Diethylamine | *Clear, colorless liquid*<br>*Flashpoint below 0° F.*<br>*Miscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC (ICC-16X) not over 10 gal. cap. | Not permitted | Not permitted | Not permitted. |
| Dimethyl sulfide | *A clear, volatile liquid having an offensive disagreeable odor.*<br>*Will evolve sulfur dioxide gas in a fire.*<br>*Boils at approximately 97° F.*<br>*Immiscible with water.* | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Dimethylamine aqueous solution. | *An aqueous solution of an inflammable gas having a fishy, ammoniacal odor. Flashpoint of 95% solution 51° F. Boiling point 45° F.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 10 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard Boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
| Monomethylamine aqueous solution. | Properties similar to above | Red. | | | | |
| Trimethylamine aqueous solution. | Properties similar to above | Red. | | | | |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Drugs, chemicals, medicines, or cosmetics, N. O. S.<br>A unit substance or a compound classified as an inflammable liquid in accordance with the definition contained herein, when prepared, packed and offered to the trade as drugs, chemicals, medicines, or cosmetics.<br>In quantity exceeding 1 pint or 16 ounces by weight, in glass or earthenware containers, or 1 quart or 32 ounces by weight in inside metal containers.<br>The following substances shall not be shipped under this designation:<br>Acrolein.<br>Carbon bisulfide (disulfide).<br>Ethyl chloride.<br>Ethyl trichlorosilane.<br>Ethylene oxide.<br>Inflammable liquids (flammable liquids) which are also corrosive liquids or oxidizing materials under these regulations.<br>Lithium aluminum hydride (ethereal).<br>Nickel carbonyl.<br>Pentaborane.<br>Spirits of nitroglycerin in excess of 1 percent by weight.<br>Trichlorosilane.<br>Zinc ethyl.<br>Ethylene imine, inhibited.<br>Zirconium, metallic, solutions or mixtures thereof, liquid.<br>Amyl mercaptan.<br>Butyl mercaptan.<br>Ethyl mercaptan.<br>Aliphatic mercaptan mixtures.<br>Isopropyl mercaptan.<br>Propyl mercaptan.<br>Vinyl trichlorosilane. | | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible"<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes WIC, (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC, (ICC-12A, 12B) not over 65 lbs. gr. wt.<br>Fiber or plywood drums WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal. cap.<br>Fiberboard boxes, WIMC (ICC-12E) not over 110 lb. gr. wt. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes WIC, (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC, (ICC-12A, 12B) not over 65 lbs. gr. wt.<br>Fiber or plywood drums WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes WIC, (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC, (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC, (ICC-12A, 12B) not over 65 lbs. gr. wt.<br>Fiber or plywood drums WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC (ICC-15X) not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal cap.<br>Fiberboard boxes, WIMC (ICC-12E) not over 110 lb. gr. wt. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Ether | *Colorless, volatile liquid, pleasant aromatic odor.*<br>*Suffocating and poisonous.*<br>*The vapor of ether mixed with air is explosive over a very wide range of 1.9% to 48%.*<br>*Vapor is 2.5 times heavier than air and will ignite at a considerable distance from the source of leakage.*<br>*Flashpoint −45° F.*<br>*Boiling point about 95° F.*<br>*Immiscible with water.*<br>Keep cool. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5B) not over 30 lb. net wt.<br>(ICC-17C, 17E) STC, not over 30 lb. net wt.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>NOTE: Total number of one or both type packages shall not exceed ten (10) on any voyage. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5B) not over 30 lb. net wt.<br>(ICC-17C, 17E) STC, not over 30 lb. net wt.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>NOTE: Total number of one or both type packages shall not exceed ten (10) on any voyage. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5B) not over 30 lb. net wt.<br>(ICC-17C, 17E) STC, not over 30 lb. net wt.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>NOTE: Total number of one or both type packages shall not exceed ten (10) on any voyage. |
| Ether, ethyl (sulfuric) | *Characteristic properties and cautions similar to "Ether," see above.* | Red. | | | | |
| Ethyl methyl ether | *Characteristic properties and cautions similar to "Ether," see above.* | Red. | | | | |
| Ethyl acetate | *Colorless, volatile liquid having a characteristic fruity odor.*<br>*Vapors are 3 times heavier than air and form an explosive mixture within a range of 2½% to 11% in air.*<br>*Flashpoint at or about 24° F.*<br>*Boiling point 170° F.*<br>*Immiscible with water.*<br>Keep cool. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

Table D—Classification: Inflammable liquids—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Ethyl formate | *Colorless inflammable liquid.*<br>*Vapors when mixed with air are explosive over a range of 5.5% to 16.5%, and are about 2½ times heavier than air.*<br>*Flashpoint about 19° F.*<br>*Boiling point 130° F.*<br>*Soluble in water.*<br>Keep cool. | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |
| Ethyl methyl ketone.<br>Methyl ethyl ketone.<br>Methyl vinyl ketone, inhibited.<br>NOTE: Methyl vinyl ketone, inhibited, in a glass or metal container not over 4 fluid ounces each, packed in a strong wooden or fiberboard box, is exempt from specification packaging, marking other than name of contents, and labeling requirements. | *Colorless liquid, acetone-like odor.*<br>*Sustained inhalation of vapors in unventilated compartments is dangerous.*<br>*Vapors are about 2½ times heavier than air and form an explosive mixture within a range of 2% to 12% in air.*<br>*Flashpoint approximately 30° F.*<br>*Miscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Ethyl nitrate (nitric ether). | *Colorless, inflammable liquid, pleasant odor and sweet taste.*<br>*Vapors are more than 3 times heavier than air and will form an explosive mixture with a lower limit of 3.8% in air.*<br>*Sustained inhalation of vapors in unventilated compartments is dangerous.*<br>*Flashpoint approximately 50° F.*<br>*Immiscible with water.* | | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Ethyl nitrite (*Nitrous ether*). | *Yellowish liquid, aromatic odor. Exceedingly volatile. Vapors are about 3 times heavier than air and form an explosive mixture within a range of 3% to 50% in air. Flashpoint about —31° F. Boiling point 61.1° F. Spontaneously decomposes at 194° F. Immiscible with water.* Keep cool. Stow well away from all sources of heat. | Red | Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums (ICC-5, 5A, 5B, 5C, 5G, 5M) not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Aluminum barrels or drums (ICC-42B, 42C) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Ethylene dichloride. Dichlorethylene. | *Colorless, oily liquid, pleasant chloroform-like odor. Anesthetic: vapors in low concentrations will be suffocating. Vapors are 3½ times heavier than air and form an explosive mixture within a range of 6% to 16% in air. Flashpoint 70° F. Immiscible with water.* | Red | Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. (ICC-37P) NRC, not over 5 gal. cap. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations. | Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA). Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB). Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Gas drips, hydrocarbon... | *Liquid condensate of gas.*<br>*Has odor of illuminating gas.*<br>*Flashpoint variable but usually low.*<br>*Immiscible with water.* | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Note: Shall not be accepted for transportation on board passenger vessels or passenger-carrying ferry vessels except such fuel as is contained within the fuel tanks of motor vehicles for use as a source of motive power for their own propulsion on and off the vessel, or for auxiliary equipment when such motor vehicles are being transported on board such vessels. | | |
| Gasoline<br>Permitted shipping names for export only:<br>Essence.<br>Gasoline.<br>Motor fuel.<br>Motor spirit.<br>Petrol.<br>Benzine.<br>Gasolina.<br>Nafta. | *Derivative of crude petroleum...*<br>*Vapor is 3 to 4 times heavier than air and when mixed with air is explosive over a range of 1.4% to 6%.*<br>*Flashpoint less than 0° F.*<br>*Immiscible with water and will float on surface.* | Red. | | | | |

*Table D—Classification: Inflammable liquids—Continued*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Heptane | *Colorless, volatile liquid having organic odor. Forms inflammable or explosive mixtures with air. Flashpoint about 25° F. Boiling point about 208° F. Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Hexane | *Colorless, extremely volatile liquid having organic odor. Forms inflammable or explosive mixtures with air. Flashpoint below 0° F. Boiling point about 156° F. Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Inflammable liquids, N. O. S.<br>Flammable liquids, N. O. S. | *May be any liquid classifying as an inflammable liquid in accordance with the definitions contained in these regulations, provided such inflammable liquid is not otherwise specified by name in these regulations.*<br>*Flashpoint variable, may be less than 0° F.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.<br>(See note in columns 5, 6, and 7.) | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with flash point exceeding 20° F.<br>Wooden barrels or kegs, (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with flash point exceeding 20° F.<br>Wooden barrels or kegs, (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |

NOTE: Specification containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Ink (when possessing a flashpoint at or below 80° F.). | *A fluid or viscous material containing coloring matter in solution or suspension. Flashpoint variable.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for ink with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for ink with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for ink with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for ink with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Insecticide, liquid (*remains exterminator*) (when possessing a flashpoint at or below 80° F.).<br>NOTE: Insecticides having a flashpoint at or below 20° F. shall not be offered for transportation or be transported on board passenger-carrying vessels. | *Insecticides frequently contain petroleum or coal tar distillates or other inflammable liquids.*<br>*Flashpoint variable.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC—5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC—17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Isooctane | *Clear, colorless, slightly volatile liquid having an organic odor. Vapors much heavier than air. Flashpoint below 20° F. Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap. gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Isooctene | *Clear, colorless liquid having an organic odor. Vapors heavier than air. Flashpoint below 20° F. Immiscible with water.* | Red. | | | | |
| Isopentane | *Clear, colorless, very volatile liquid having an organic odor. Vapors heavier than air. Flashpoint below −60° F. Boiling point about 81° F. Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |
| Isoprene | *Clear, colorless, very volatile liquid having an organic odor. Vapors form inflammable or explosive mixture with air. Flashpoint below −0° F. Boiling point about 85° F. Immiscible with water.* | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Isopropyl acetate | *Colorless, aromatic liquid. Slightly miscible with water. Flashpoint 35° F.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 16 gal. cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Lacquer base or lacquer chips, plastic (wet with alcohol or solvent).<br>Wet with at least 20% by weight of alcohol or solvent with a flashpoint not lower than 30° F.<br>(When possessing a flashpoint at or below 80° F.) | *Lacquer chips are composed of nitrocellulose incorporated with a plasticizer and pigments. They are the film-forming part of lacquer which remains after the solvents or thinners have evaporated.*<br>*Involved in fire will give off nitrous fumes which are deep orange in color and extremely poisonous.*<br>*Flashpoint is variable depending upon the solvent used to wet the chips.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C, 6J) not over 450 lb. gr. wt.<br>(ICC-17C, 17E, 17H) STC, not over 450 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 450 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 450 lb. gr. wt.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C, 6J) not over 450 lb. gr. wt.<br>(ICC-17C, 17E, 17H) STC, not over 450 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs: (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C, 6J) not over 450 lb. gr. wt.<br>(ICC-17C, 17E, 17H) STC, not over 450 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 450 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 450 lb. gr. wt.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr .wt. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C, 6J) not over 450 lb. gr. wt.<br>(ICC-17C, 17E, 17H) STC, not over 450 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 450 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 450 lb. gr. wt.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

Table D—Classification: Inflammable liquids—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Methyl acetate | *A clear, colorless, volatile liquid with fragrant odor. Vapors are 5½ times heavier than air and form an explosive mixture within a range of 4% to 14% in air. Flashpoint about 20° F. Boiling point about 132° F. Slightly miscible with water.* | Red | Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs: (ICC-10A) not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 16 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap. Fiberboard boxes, (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. Fiber or plywood drums, (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| Methyl acetone | *A water-white, anhydrous liquid consisting of acetone with methanol. Flashpoint variable, may be as low as 4° F. Miscible with water.* | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |
| Methyl formate | *Colorless liquid, agreeable odor. Vapor pressure 18 lbs. at 100° F. Vapors 2 times heavier than air and form an explosive mixture within a range of 5½% to 23% in air. Sustained inhalation of vapors in an unventilated compartment is dangerous. Flashpoint —35° F. Boiling point 93° F. Slightly miscible with water.* | Red | Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

Table D—Classification: Inflammable liquids—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Methyl iso-propenyl ketone, inhibited. | *Nearly colorless, inflammable liquid, with a pleasant odor and sweet taste.*<br>*Sustained inhalation of vapors in unventilated spaces is dangerous.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Methyl methacrylate monomer. | *A water white liquid of low viscosity.*<br>*Flashpoint about 55° F.*<br>May polymerize spontaneously without addition of an inhibitor. | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipment:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipment:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC, not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Motor fuel, N. O. S. (when possessing a flashpoint at or below 80° F.) | *Any fuel for internal combustion motors not otherwise specified by name in these regulations.*<br>*Vapors when mixed with air may be explosive over a wide range.*<br>*Flashpoint variable.*<br>*May or may not be miscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Not permitted | Not permitted | Not permitted.<br>NOTE: Shall not be accepted for transportation on board passenger vessels or passenger-carrying ferry vessels except such fuel as is contained within the fuel tanks of motor vehicles for use as a source of motive power for their own propulsion on and off the vessel, or for auxiliary equipment when such motor vehicles are being transported on board such vessels. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Neohexane | *Clear, water-white, rather volatile liquid.*<br>*Vapors form inflammable or explosive mixtures with air.*<br>*Flashpoint below 0° F.*<br>*Immiscible with water.*<br>*Boiling point about 120° F.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Oil:<br>Oil, N. O. S.<br>Petroleum oil.<br>Petroleum oil, N. O. S. (When possessing a flashpoint at or below 80° F. but not less than 20° F.)<br>NOTE: For these liquids when possessing a flashpoint at or below 20° F., see "Petroleum distillate." | *May include any oil product derived from crude petroleum, except oils properly described by name within these regulations.*<br>*Flashpoint variable.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) STC, not over gal. cap. for liquid having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) STC, not over 5 gal. cap. for liquid having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) STC, not over 5 gal. cap. for liquid having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) STC, not over 5 gal. cap. for liquid having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids—Continued*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Paint, enamel, lacquer, stain, shellac, varnish, aluminum, bronze, gold, wood filler, liquid, and lacquer base liquid. | *Flashpoint variable. May or may not be miscible with water.* | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E), STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flashpoint exceeding 20° F.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums:<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E), WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flashpoint exceeding 20° F.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flashpoint exceeding 20° F.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flashpoint exceeding 20° F.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums:<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| (When possessing a flashpoint at or below 80° F.)<br>When the flashpoint of a liquid shipped under this descriptive name is 20° F. or below, the bill of lading or other shipping paper shall bear the following certification:<br>*"This liquid possesses a flashpoint of 20° F. or less."*<br>When the flashpoint is above 20° F. and not more than 80° F. the following certification shall appear hereon:<br>*"This liquid possesses a flashpoint of above 20° F. but not more than 80° F."* | | | | | | |
| • • • | • • • | • • • | • • • | • • • | • • | • • • |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Pentane | *A clear colorless, volatile liquid obtained from petroleum.*<br>*Vapors when mixed with air are explosive over a range of approximately 1.4% to 8.0% in air.*<br>*Flashpoint below 0° F.*<br>*Boiling point 85° F. to 104° F.*<br>*Immiscible with water.*<br>Keep cool. | Red. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 16 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments of petroleum distillate or naphtha distillate:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 16 gal. cap. | Not permitted. | Not permitted. | Not permitted. |
| Pentane methyl | *A clear, colorless, volatile liquid having an organic odor.*<br>*Vapors form inflammable or explosive mixtures with air.*<br>*Flashpoint below 0° F.*<br>*Boiling point about 155° F.*<br>*Immiscible with water.*<br>Keep cool. | Red. | | | | |
| Petroleum distillate<br>Naphtha distillate.<br>(When possessing a flashpoint at or below 80° F.) | *Any petroleum distillate not otherwise named in these regulations that is not used as motor fuel for internal combustion engines.*<br>*Flashpoint variable.*<br>*Vapors when mixed with air are explosive over a wide range.*<br>*Immiscible with water.* | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Polishes, metal, stove, furniture and wood, liquid. (When possessing a flashpoint at or below 80° F.) | *Liquid preparations used to remove film from surfaces and restore and protect polish and finish of such surface. Flashpoint variable. May or may not be miscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E,) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids having a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap. |
| Compounds, polishing, liquid. | | Red. | | | | |
| Furniture polish | | Red. | | | | |
| Metal polish, liquid | | Red. | | | | |
| Stove polish, liquid | | Red. | | | | |
| Wood polish, liquid. (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |

Table D—Classification: Inflammable liquids—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Propylene oxide | *Colorless liquid, ethereal odor. Explosive range: 2 to 22% in air. Flashpoint below 0° F. Miscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 1 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |
| Pyridine<br>(When possessing a flashpoint at or below 80° F.). | *A slightly yellow or colorless liquid having a penetrating and offensive odor. Vapors are 2.75 times heavier than air and form an explosive mixture within a range of 1.8 to 12.4% in air. Vapors are poisonous and suffocating. Flashpoint 68° F. Miscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC:<br>(ICC-12A, 12B) not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Pyroforic fuel.<br>Pyroforic solutions. | *Highly inflammable.*<br>*Takes fire on contact with air.*<br>Keep cool. | Red | Stowage:<br>"On deck protected."<br>Outside containers:<br>Cylinders as prescribed for any compressed gas except acetylene. | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Resin solution (when possessing a flashpoint at or below 80° F.). | *Resin dissolved in a volatile solvent.*<br>*Flashpoint variable, depending upon the solvent used.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums:<br>(ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes:<br>(ICC-15X) WIMC not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M, 6A, 6B, 6C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 30 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIC not over 1 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC not over 55 gal. cap.<br>(ICC-37A, 37B) STC not over 5 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C, 42F) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC not over 16 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC not over 65 lb. gr. wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B 22A, 22B) WIC not over 1 gal. cap.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums:<br>(ICC-17X) STC not over 55 gal. cap.<br>Wooden boxes:<br>(ICC-15X) WIMC not over 10 gal. cap. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Road asphalt or tar, liquid.<br>*Asphalt cut-back.*<br>Tar, liquid.<br>(When possessing a flashpoint at or below 80° F.)<br>(See §146.27-100 for transportation of asphalt or road tar in highway tank vehicles.) | *Substance prepared by the fluxing of asphalt with petroleum distillate.*<br>*Pungent, penetrating odor.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC, (ICC-15X) not over 10 gal. cap.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10A, 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC not over 110 lbs. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 6C) not over 110 gal. cap.<br>(ICC-5M, 6A) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums:<br>(ICC-42B, 42C) not over 110 gal. cap.<br>(ICC-42F) not over 55 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.<br>Authorized only for liquids having a flashpoint above 20° F.:<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10A 10B, 10C) not over 50 gal. cap.<br>Fiberboard boxes (ICC-12E) WIMC, not over 110 lbs. gr. wt. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sodium methylate, alcohol mixture. (When possessing a flashpoint at or below 80° F.) | *Sodium methylate dissolved in alcohol.* *Flash point variable.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC (ICC-15X) not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal. cap.<br>Fiberboard boxes WIMC, not over 110 lb. gr. wt. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal. cap.<br>Fiberboard boxes WIMC, not over 110 lb. gr. wt. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Solvents, N. O. S. (When possessing a flashpoint at or below 80° F.) | *Inflammable, volatile liquids used for solvents, other than those solvents specified by name in these regulations. May be extremely volatile liquids and if so, vapors in air will form explosive mixtures. Vapors may be poisonous and suffocating. Flashpoint variable.* | Red. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal. cap.<br>Fiberboard boxes WIMC, not over 110 lb. gr. wt. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>(Authorized only for liquids having a flashpoint above 20° F.)<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17E) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap. for liquids with a flash point exceeding 20° F.<br>Aluminum barrels or drums (ICC-42B 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC, (ICC-21A, 21B, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes, WIMC (ICC-15X not over 10 gal. cap.<br>Containers authorized only for liquids having a flashpoint above 20° F.<br>Steel barrels or drums (ICC-17E, 17H) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-10B) not over 50 gal. cap.<br>Fiberboard boxes WIMC, not over 110 lb. gr. wt. |
| Plastic solvent, N. O. S. | | Red. | | | | |
| Pyroxylin solution | | Red. | | | | |
| Pyroxylin solvent, N. O. S. (When possessing a flashpoint at or below 80° F.) | | Red. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Toluol (Toluene.) | *Colorless volatile liquid. Benzene-like odor, distillate from coal tar. Vapors are 3 times heavier than air and form an explosive mixture within a range of 1⅓% to 7% in air. Vapors are poisonous and suffocating. Flashpoint 45° F. Immiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC. (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA)<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC-15X) WIMC not over 10 gal. cap. |
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*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Turpentine substitutes (When possessing a flashpoint at or below 80° F.) | *Special fractions of petroleum oils (usually with a boiling point of 300° to 380° F.) used in the place of turpentine as a paint thinner, etc.*<br>*Flashpoint variable.*<br>*Immiscible with water.* | Red | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC–5M) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC–17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC–42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A, 10B) not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC–12A, 12B) WIC, not over 65 lb. gr. wt. (ICC–12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC–21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments of turpentine substitutes:<br>Steel barrels or drums (ICC–17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC–15X) WIMC, not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC–5M) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC–17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC–42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A, 10B) not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC–12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC–21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC–5M) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC–17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC–42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A, 10B) not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC–12A, 12B) WIC, not over 65 lb. gr. wt. (ICC–12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC–21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC–5M) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC–17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC–42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A, 10B) not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC–12A, 12B) WIC, not over 65 lb. gr. wt. (ICC–12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC–21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments of turpentine substitutes:<br>Steel barrels or drums (ICC–17X) STC, not over 55 gal. cap.<br>Wooden boxes (ICC–15X) WIMC, not over 10 gal. cap. |
| Vinyl acetate, inhibited. | *Clear, colorless liquid having a pungent odor.*<br>*Soluble in most organic solvents.*<br>*Flashpoint about 20° F.*<br>*Immiscible with water.* | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Vinylidene chloride, inhibited. | *Clear, colorless to straw-colored, rather volatile liquid having a penetrating odor. Flashpoint below 20° F. Immiscible with water.* | Red | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap.<br>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.<br>Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt.<br>Fiber or plywood drums, WIC (ICC-21A, 22A, 22B) not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Wet nitrocellulose colloided, granular or flake (must contain at least 20%, by weight of alcohol or a solvent with flashpoint not lower than 30° F.). | *Formed by the nitration of cotton by treatment with a mixture of nitric and sulfuric acids.*<br>*Involved in a fire will give off nitrous fumes, deep orange in color, and extremely irritating and poisonous.*<br>*Flashpoint variable, not less than 20° F.*<br>Keep cool.<br>Check gross weight of containers to be certain no leakage has occurred. Refuse leaking containers or ones showing signs of having leaked. | Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G, 5M) not over 450 lb. gr. wt.<br>(ICC-6A, 6B, 6C, 6J) not over 450 lb. gr. wt.<br>(ICC-17C, 17E, 17H) STC, not over 450 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37F) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 450 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 450 lb. gr. wt.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Authorized only for nitrocellulose or collodion cotton, fibrous, wet, or colloided nitrocellulose, granular or flake, wet: Aluminum barrels or drums (ICC-42F) not over 450 lb. gr. wt. | Not permitted | Not permitted | Not permitted. |
| Wet nitrocellulose (must contain at least 30% by weight of alcohol or a solvent with a flashpoint not lower than 30° F.). | | Red. | | | | |
| Wet nitrostarch (must contain at least 30% by weight of alcohol or a solvent with flashpoint not lower than 30° F.).<br>Shipping containers on above shall have marked thereon the gross, tare, and net weight of the package. | *Formed by the nitration of starch. Characteristics and hazards similar to those of "Nitrocellulose, wet with an inflammable liquid," which see above.*<br>Keep cool.<br>Check gross weight of containers to be certain no leakage has occurred. Refuse leaking containers or ones showing signs of having leaked. | Red. | | | | |

*Table D—Classification: Inflammable liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Xylol.....<br>(Xylene.)<br>(When possessing a flashpoint at or below 80° F.) | *Coal tar distillate. Colorless liquid having a characteristic odor.*<br>*Vapors are 4 times heavier than air and will form an explosive mixture in air.*<br>*Vapors are poisonous and suffocating.*<br>*Flashpoint 75° F. or above.*<br>*Immiscible with water.* | Red..... | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WIMC (ICC-15X) not over 10 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-17H, 37A) WIC of glass, not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).....<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap.<br>(ICC-5M) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-17H, 37A) WIC of glass not over 9 pints capacity each.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum barrels or drums (ICC-42B, 42C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 16 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap.<br>Fiberboard boxes:<br>(ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(ICC-12E) WIMC, not over 110 lb. gr. wt.<br>Fiber or plywood drums (ICC-21A, 21B, 22A, 22B) WIC, not over 1 gal. cap.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for export shipments:<br>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.<br>Wooden boxes WMIC (ICC-15X) not over 10 gal. cap. |
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(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING INFLAMMABLE SOLIDS AND OXIDIZING MATERIALS

1. Section 146.22–15 is amended by changing (a) to read as follows:

§ 146.22–15 *Mixed stowage of oxidizing materials.* • • •

(a) These substances shall not be stowed in the same compartment or hold in which explosives are stowed except nitro carbo nitrate may be stowed in the same hold or compartment with magazines containing dynamite, commercial boosters, and/or other non-priming, non-initiating types of explosives that are compatible with dynamite.

2. Section 146.22–35 is amended by deleting the present text (revised requirements transferred to 46 CFR 98.05) and inserting the following in lieu thereof:

§ 146.22–35 *Elemental phosphorus in water in bulk.* (a) Elemental phosphorus, white or yellow, in water may be carried in bulk only in inspected and certificated cargo barges, tank barges, or cargo vessels. For applicable requirements, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

3. Section 146.22–100 *Table E—Classification: Inflammable solids and oxidizing materials* is amended as follows:

**§ 146.22–100 *Table E—Classification: Inflammable solids and oxidizing materials***

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Calcium hypochlorite compounds, dry, containing more than 39 percent available chlorine.<br>Lithium hypochlorite compounds, dry, containing more than 39 percent available chlorine. | *White powder.*<br>*Decomposed by moisture.*<br>*If exposed to excessive heat, or to the rays of the sun, it may decompose spontaneously evolving vapor with sufficient pressure to rupture container.*<br>*The vapors from ruptured containers have been known to ignite spontaneously.*<br>*When exposed it gives off pungent vapors (chlorine) that are corrosive.*<br>*May destroy textiles.*<br>Do not stow in the same compartment with corrosive liquids (white label) nor with turpentine.<br>Stow well away from foodstuffs, living quarters, and all sources of artificial heat.<br>Keep dry and cool. | Yellow | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck, but not overstowed."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–6A, 6B, 6C) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Strong wooden or fiberboard packages with inside metal containers not over 5 lb. cap. each. Outside wooden containers not to exceed 150 lb. gross weight and outside fiberboard containers not to exceed 65 lb. gross weight. Inside metal containers not over 7½ lb. cap. each are authorized for material in tablet form only. | Stowage:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–6A, 6B, 6C) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Strong wooden or fiberboard packages with inside metal containers not over 5 lb. cap. each. Outside wooden containers not to exceed 150 lb. gross weight and outside fiberboard containers not to exceed 65 lb. gross weight. Inside metal containers not over 7½ lb. cap. each are authorized for material in tablet form only. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–6A, 6B, 6C) not over 55 gal cap.<br>(ICC–17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Strong wooden or fiberboard packages with inside metal containers not over 5 lb. cap. each. Outside wooden containers not to exceed 150 lb. gross weight and outside fiberboard containers not to exceed 65 lb. gross weight. Inside metal containers not over 7½ lb. cap. each are authorized for material in tablet form only. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC–6A, 6B, 6C) not over 55 gal. cap.<br>(ICC–17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Strong wooden or fiberboard packages with inside metal containers not over 5 lb. cap. each. Outside wooden containers not to exceed 150 lb. gross weight and outside fiberboard containers not to exceed 65 lb. gross weight. Inside metal containers not over 7½ lb. cap. each are authorized for material in tablet form only. |
| • • • | • • • | • • • | • • • | • • • | • • | • |
| Caprylyl peroxide solution. | *Straw-colored liquid with sharp odor.*<br>*Burns extremely rapidly when ignited, even by external flame.*<br>*Decomposes suddenly at about 194° F.*<br>*Immiscible with water.*<br>Do not stow with explosives, combustible materials, or acids.<br>Keep cool. | Yellow | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Wooden boxes, (ICC–15A, 15B, 15C, 16A, 19A), WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes, (ICC–12B) WIC, not over 1 gal. cap.<br>Authorized only for material which will not react dangerously with, or cause decomposition of polyethylene:<br>Steel barrels or drums:<br>(ICC–5B,6J, 37A) STC, WIC (ICC–2S polyethylene) not over 15 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Following barrels and drums authorized for materials which will not react dangerously with the drum's metal, or be decomposed by contact with it:<br>Steel barrels or drums: (ICC–17C, 17E) STC, not over 15 gal. cap.<br>Aluminum drums: (ICC–42B) not over 15 gal. cap. | Not permitted. | Not permitted. | Not permitted. |
| • • • | • • • | • • • | • • • | • • | • • • | • • • |

*Table E—Classification: Inflammable solids and oxidizing materials*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Chlorate and borate mixtures.<br>Chlorate and magnesium chloride mixtures.<br>NOTE: Such mixtures containing 28% or less chlorate and no other hazardous additives are not subject to the regulations in this part. | *Mixtures of chlorates and borates or magnesium chloride in carrying proportions containing no other hazardous additives.* | Yellow | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Mixtures containing 50% or more chlorate may be accepted in:<br>Steel barrels or drums:<br>(ICC-6A) not over 55 gal. cap.<br>(ICC-6B, 6C) not over 110 gal. cap.<br>(ICC-17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 50 gal. cap.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIMC, not over 25 lb. net wt.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A, 22B) WIMC ICC-2P, not over 220 lb. gr. wt.<br>Mixtures containing more than 28% chlorate but less than 50% may also be accepted in:<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIL, not over 600 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B) WIL, not over 250 lb. gr. wt.<br>Fiberboard boxes, WIC, not over 4 lb. net wt. each; gr. wt. of box not over 65 lb.<br>Fiber or plywood drums:<br>(ICC-21A, 21B, 22A) not over 220 lb. gr. wt.<br>Multiwall paper bags:<br>(ICC-44C, 44D) not over 50 lb. net wt. | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Dimethylhexane dihydroperoxide, dry. | *Finely divided white powder.*<br>*Inflammable and burns steadily when ignited.*<br>*Will decompose at elevated temperatures.*<br>Keep cool and dry.<br>Do not stow with combustible materials, explosives or acids. | Yellow | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Wooden boxes:<br>(ICC-15A, 15B) WIC, not over 50 lb. net wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 50 lb. net wt. | Stowage:<br>"On deck under cover."<br>Outside containers:<br>Wooden boxes:<br>(ICC-15A, 15B) WIC, not over 50 lb. net wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 50 lb. net wt. | Ferry stowage (AA).<br>Outside containers:<br>Wooden boxes:<br>(ICC-15A, 15B) WIC, not over 50 lb. net wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 50 lb. net wt. | Ferry stowage (BB).<br>Outside containers:<br>Wooden boxes:<br>(ICC-15A, 15B) WIC, not over 50 lb. net wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 50 lb. net wt. |

*Table E—Classification: Inflammable solids and oxidizing materials*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Dimethylbenzene dihydroperoxide, wet (*wet with at least 39 percent of water by weight*). Shipping containers must have marked thereon the gross and tare weights and the net weight of the contents. | *Finely divided white powder* in water. *Inflammable when dry.* Check gross weight of container to ascertain if leakage has occurred. Reject leaking containers or ones that show signs of having leaked. | Yellow | Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. | Stowage: "On deck under cover." Outside containers: Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. | Ferry stowage (AA). Outside containers: Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. | Ferry stowage (BB). Outside containers: Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. |
| • • • | • • • | • • • | • • • | • | • • • | • • |
| Nitro carbo nitrate | *Composed principally of ammonium nitrate.* *Involved in a fire will greatly intensify the burning of all combustible material and under conditions of exposure to high temperatures (above 200° F.) rapid decomposition and ignition may occur. Will burn with explosive violence.* *Soluble in water.* Stow separate from all combustible material, explosives (except dynamite, commercial boosters, and/or other non-priming, non-initiating types of explosives which are compatible with dynamite may be stowed in a magazine located in the same hold or compartment) or acids and away from chlorates. | No label required. | | | | |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Peroxides, organic, liquid, N. O. S. Peroxides, organic, solution, liquid, N. O. S. | *Combustible liquids, usually colorless, with sharp penetrating odor. Readily ignitable and burns with acceleration. Inmiscible with water.* Do not stow with combustible materials, explosives or acids. | Yellow | Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 16A) WIC, not over 250 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 1 gal. cap. Authorized only for material which will not react dangerously with, or cause decomposition of polyethylene: Steel barrels or drums (ICC-5B, 6J, 37A) STC, WIC (ICC-2S polyethylene) not over 15 gal. cap. Steel drums: (ICC-37P) NRC, not over 5 gal. cap. Following barrels and drums authorized for materials which will not react dangerously with the drum's metal, or be decomposed by contact with it: Steel barrels or drums: (ICC-17C, 17E) STC, not over 15 gal. cap. Aluminum drums: (ICC-42B) not over 15 gal. cap. | Not permitted. | Not permitted. | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table E—Classification: Inflammable solids and oxidizing materials*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Phosphorus, white or yellow, in water.<br>Shipping containers shall have marked thereon the gross, tare, and net weight of the package.<br>NOTE: For bulk shipments, see subchapter I (cargo and miscellaneous vessels) of this chapter. | *Almost colorless or yellowish semitransparent mass becoming somewhat darker or white and waxy in appearance with aging.*<br>*Melting point 110° F.*<br>*Fumes are poisonous and possess a strong garlic-like odor.*<br>*White or yellow phosphorus will ignite spontaneously in air.*<br>*In event of breakage, do not handle this substance with bare hands.*<br>Protect from freezing.<br>Do not stow with explosives, inflammable liquids (red label), corrosive liquids (white label), nor with nitrates, chlorates, or permanganates.<br>Stow away from living quarters and foodstuffs.<br>Check gross weight of containers to be certain no leakage has occurred. Refuse leaking containers or ones showing signs of having leaked. | Yellow | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers—*When packed in water:*<br>Steel barrels or drums: (ICC-5A, 6A, 6B) not over 30 gal. cap<br>Wooden boxes: (ICC-15A, 15B) with hermetically sealed metal cans or metal linings, not over 250 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • | • • • | • • • |
| Sodium nitrite | *A yellowish-white salt somewhat moist in appearance.*<br>*It is an oxidizing material which while containing less oxygen than the nitrates, is more readily decomposed, and therefore generally more active.*<br>*When mixed with organic matter, it is more readily ignited than a corresponding mixture of sodium nitrate.*<br>*Sodium nitrite if mixed with ammonium salts decomposes spontaneously and may cause fires.*<br>*Absorbs moisture.*<br>*Soluble in water.*<br>*Involved in a fire will greatly intensify the burning of all combustible materials.*<br>Do not stow with ammonium nitrate.<br>Stow away from all combustible materials, explosives or acids (white label). | Yellow | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck away from heat."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6A) not over 55 gal. cap.<br>(ICC-6B, 6C) not over 110 gal. cap.<br>(ICC-17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 600 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums (ICC-21A, 21B) not over 425 lb. gr. wt.<br>Plywood drums:<br>(ICC-22A) not over 220 lb. gr. wt.<br>(ICC-22B) WIMC, not over 220 lb. gr. wt.<br>Multi-wall paper bags:<br>(ICC-44C) WIL, not over 100 lb. net wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6A) not over 55 gal. cap.<br>(ICC-6B, 6C) not over 110 gal. cap.<br>(ICC-17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 600 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums (ICC-21A, 21B) not over 425 lb. gr. wt.<br>Plywood drums:<br>(ICC-22A) not over 220 lb. gr. wt.<br>(ICC-22B) WIMC, not over 220 lb. gr. wt.<br>Multi-wall paper bags:<br>(ICC-44C) WIL, not over 100 lb. net wt. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6A) not over 55 gal. cap.<br>(ICC-6B, 6C) not over 110 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 600 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums (ICC-21A, 21B) not over 425 lb. gr. wt.<br>Plywood drums:<br>(ICC-22A) not over 220 lb. gr. wt.<br>(ICC-22B) WIMC, not over 220 lb. gr. wt.<br>Multi-wall paper bags:<br>(ICC-44C) WIL, not over 100 lb. net wt. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-6A) not over 55 gal. cap.<br>(ICC-6B, 6C) not over 110 gal. cap.<br>(ICC-17C, 17E, 17H, 37A, 37B) STC, not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 600 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 250 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums (ICC-21A, 21B) not over 425 lb. gr. wt.<br>Plywood drums:<br>(ICC-22A) not over 220 lb. gr. wt.<br>(ICC-22B) WIMC, not over 220 lb. gr. wt.<br>Multi-wall paper bags:<br>(ICC-44C) WIL, not over 100 lb. net wt. |
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Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 991; 3 CFR, (R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING CORROSIVE LIQUIDS

1. Section 146.23-35 is amended by deleting the present text (revised requirements transferred to § 98.10) and by inserting the following in lieu thereof:

§ 146.23-35 *Sulfuric acid in bulk.* (a) Sulfuric acid or spent sulfuric acid may be carried in bulk only in inspected and certificated cargo barges, tank barges, or cargo vessels. For applicable requirements, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

2. Section 146.23-50 is amended by deleting the present text (revised requirements transferred to § 98.15) and by inserting the following in lieu thereof:

§ 146.23-50 *Hydrochloric acid in bulk.* (a) Hydrochloric acid may be carried in bulk only in inspected and certificated cargo barges, tank barges, or cargo vessels. For applicable requirements, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

3. Section 146.23–100 *Table F—Classification: Corrosive liquids* is amended as follows:

§ 146.23–100 *Table F—Classification: Corrosive liquids*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Acids, liquids, N. O. S. | *Any acid not otherwise specified by name herein which qualifies under the definition contained in these regulations as a corrosive liquid.*<br>Protect from sparks and open flame.<br>Keep cool. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, glass, in boxes, kegs or plywood drums:<br>(ICC–1A, 1B, 1C, 1E) not over 13 gal. cap.<br>(ICC–1D) not over 6½ gal. cap.<br>For export only (ICC–1X) not over 6 gal. cap.<br>Carboys, lead, metal jacketed (ICC–2S) not over 15 gal. cap.<br>Carboys, polyethylene, in plywood boxes, drums or wooden boxes (ICC–1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC–5A, 5C, 5M) not over 110 gal. cap.<br>(ICC–5D) rubber lined, not over 110 gal. cap.<br>(ICC–5H) lead lined, not over 110 gal. cap.<br>(ICC–17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC–17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC–4SA) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–20A) asphalt lined, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC–12A, 12B) WIC, not over 65 lb. gr. wt.<br>NOTE: Specification containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein. | Not permitted | Not permitted | Not permitted. |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Alkaline battery fluid | *Usually colorless, odorless, liquids.*<br>*Neither volatile nor combustible.*<br>*Hazardous in contact with certain textiles and metals.* | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"On deck in open."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Portable tanks:<br>(ICC-60) not over 5,000 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"On deck in open."<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA)<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Portable tanks:<br>(ICC-60) not over 5,000 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
| Alkaline caustic liquids, N. O. S. | *Liquid used in alkaline storage batteries.*<br>For characteristics and hazards see "Alkaline corrosive, liquids, N. O. S. | White. | | | | |
| Alkaline, corrosive liquids, N. O. S. | *May be any alkaline corrosive liquid properly described as such in accordance with the definition for a corrosive liquid and not otherwise specified by name in these regulations.*<br>*Particularly hazardous in contact with organic substances and textiles.*<br>*Miscible with water.*<br>These materials in inside containers of not more than 8 fluid ounces capacity each, packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labelling requirements. | White. | | | | |
| . . . | . . | . . . | . . . | . . | . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Antimony pentachloride, solution. | See "Antimony pentachloride." | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, glass, in boxes, kegs or plywood drums:<br>(ICC-1A, 1B, 1C, 1E) not over 13 gal. cap.<br>(ICC-1D) not over 6½ gal. cap.<br>For export only (ICC-1X) not over 6 gal. cap.<br>Carboys, lead, metal jacketed (ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene, in plywood boxes, drums or wooden boxes (ICC-1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC-5A, 5C, 5M) not over 110 gal. cap.<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5H) lead lined, not over 110 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • | • • • |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Benzoyl chloride | *A clear, colorless liquid which even at ordinary temperatures gives off a vapor very irritating to the eyes, nose, and throat. Decomposes on contact with water liberating fumes which are irritating to the mucous membrane and in sufficient quantities will be suffocating.* Keep dry. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed; glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed; glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in kegs; glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, boxed; glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Unstabilized benzoyl chloride when anhydrous and free from impurities such as iron may be shipped in:<br>Nickel drums (ICC-5K) not over 55 gal. cap. | Not permitted | Not permitted | Not permitted |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Benzyl chloride | *A colorless liquid possessing a rather unpleasant odor and vapors which are very irritating to the eyes, nose, and throat.*<br>*Combustible. Flash point 150° F.*<br>*Immiscible with water.* | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed; glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed; glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in kegs; glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, boxed; glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>(ICC-17C) STC, not over 55 gal. cap.<br>Benzyl chloride must be stabilized when packed in unlined containers.<br>Steel drums, lead-lined (ICC-5H) not over 55 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Benzyl chloride must be stabilized when loaded in unlined tanks.<br>Unstabilized benzyl chloride when anhydrous and free from impurities such as iron may be shipped in:<br>Nickel drums (ICC-5K) not over 55 gal. cap. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . | . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, caution, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Boiler compound, liquid | *Usually clear, colorless, odorless liquid.*<br>*Generally contains caustic alkali in varying proportions.*<br>*May be corrosive to wool textiles and some metals.*<br>*May cause painful burns to the skin and tissue.*<br>*Miscible with water.* | White | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) or not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>[(ICC-6J) WIC,ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12B), WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17E, 17H) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Caustic potash, liquid.<br>Potassium hydroxide solution.<br>Caustic soda, liquid.<br>Sodium hydroxide solution. | *Odorless, corrosive liquids.*<br>*Will attack flesh and destroy organic material.*<br>Stow well away from other corrosive liquids (white label).<br>Do not stow over cargo of an organic nature. | White. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt. marked "For Caustic Soda, Liquid, Only" or "For Caustic Potash, Liquid, Only."<br>Tank cars complying with ICC regulations.<br>In tank barges, see section covering barges in these regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt. marked "For Caustic Soda, Liquid, Only" or "For Caustic Potash, Liquid, Only." | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt. marked "For Caustic Soda, Liquid, Only" or "For Caustic Potash, Liquid, Only."<br>Motor truck vehicles having cargo tanks marked "For Caustic Soda, Liquid, Only", or "For Caustic Potash, Liquid, Only." | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums:<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt. marked "For Caustic Soda, Liquid, Only" or "For Caustic Potash, Liquid, Only."<br>Tank cars complying with ICC regulations.<br>Motor truck vehicles having cargo tanks marked "For Caustic Soda, Liquid, Only", or "For Caustic Potash, Liquid, Only." |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Chromic acid solution | *A solution of chromic acid. Has a strong caustic effect upon the skin.*<br>Observe containers carefully for signs of leakage and reject any which are found leaking.<br>Do not stow with other acids (white label), inflammable liquids (red label), glycerin or any combustible material.<br>Observe special requirements for stowage on board vessels also transporting explosives. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass, (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, ployethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-6J) WIC JCC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA)<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (CC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (CC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Compounds, cleaning liquid.<br>Compounds, iron or steel rust preventing or removing.<br>Compounds, lacquer, paint or varnish removing liquid.<br>Compounds, vulcanizing, liquid. | *Any compounds under these descriptive names that classify in accordance with the definitions given in these regulations as a corrosive liquid.* | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC–1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC–1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC–1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC–1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC–1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC–1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC–1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC–2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC–5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC–5C) not over 110 gal. cap.<br>Monel drums (ICC–5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC–17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC–5H) not over 110 gal. cap.<br>Metal drums (ICC–17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC–43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A) asphalt-lined, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC–12A, 12B), WIC, not over 65 lb. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys in plywood drums, glass, (ICC–1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC–1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC–1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC–2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC–5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC–5C) not over 110 gal. cap.<br>Monel drums (ICC–5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC–17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC–5H) not over 110 gal. cap.<br>Metal drums (ICC–17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drum (ICC–43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A) asphalt-lined, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC–12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC–1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC–1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC–1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC–1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC–1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC–1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC–2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC–5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC–5C) not over 110 gal. cap.<br>Monel drums (ICC–5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC–17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC–5H) not over 110 gal. cap.<br>Metal drums (ICC–17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC–43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A) asphalt-lined, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC–12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC–1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC–1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC–1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC–1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC–1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC–1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC–2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC–5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC–5C) not over 110 gal. cap.<br>Monel drums (ICC–5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC–17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.<br>(ICC–37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC–5H) not over 110 gal. cap.<br>Metal drums (ICC–17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC–43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC–10A) asphalt-lined, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC–12A, 12B), WIC, not over 65 lb. gr. wt. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Corrosive liquid, N. O. S. | *Any liquid not otherwise specified by name in this chart which qualifies as a corrosive liquid according to the definition contained in these regulations.* | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal.cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC—5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr wt.<br>(See Note in columns 5, 6, and 7.) | Not permitted | Ferry stowage (AA)<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC—5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. |
| | | | | Note: Specification containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein. | | |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Cupriethylene-diamine solution. | *A dark purple liquid with odor resembling ammonia.*<br>*Dissolves cellulose products such as cotton, wood, etc.*<br>*Not very corrosive to most metals.*<br>*In event of leakage drench with water.* | White | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks: (ICC-6J) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap., and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F,) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks: (ICC-6J) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
| . . . | . . . | . . . | . . . | . . . | . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Drugs, chemicals, medicines, or cosmetics, N. O. S.<br>When packed in accordance with ICC requirements for the particular substance and separated and cushioned by incombustible absorbent material when the characteristics of the substance so require.<br>See §146.23-30 for limited quantity shipments. | *A unit substance or a compound classified as a corrosive liquid in accordance with the definition contained herein, when prepared, packed, and offered to the trade as drugs, chemicals, medicines or cosmetics.* | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>(See note in column 5, 6, and 7.) | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal barrels or drums:<br>(ICC-17H, 37A, 37B) STC, lined, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A), asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. |

NOTE: Specification containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Electrolyte (acid) or corrosive battery fluid.<br>NOTE: Electrolyte (acid) must not be over 47% strength (39° Baumé). | *Electrolyte acid is a term commonly applied to dilute sulfuric acid used in electric storage batteries.*<br>*This acid generates heat when mixed with water.*<br>*Will char organic material.*<br>*Miscible with water.*<br>Do not stow with combustible materials.<br>Observe closely for signs of leakage and reject packages which are leaking or show signs of having leaked. | White. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Carboys, boxed, (ICC-1A) glass only, not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Jugs in tubs (ICC-3I) not over 2 gal. each and limited to 1 jug in each tub.<br>Steel barrels or drums:<br>(ICC-5H) lead-lined, not over 110 gal. cap.<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt.<br>Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap.<br>Portable tanks, lined (ICC-60) not over 5,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, (ICC-1A) glass only, not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Jugs in tubs (ICC-3I) not over 2 gal. each and limited to 1 jug in each tub.<br>Steel barrels or drums:<br>(ICC-5H) lead-lined, not over 110 gal. cap.<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed (ICC-1A) glass only, not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Jugs in tubs (ICC-3I) not over 2 gal. each and limited to 1 jug in each tub.<br>Steel barrels or drums:<br>(ICC-5H) lead-lined, not over 110 gal. cap.<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, (ICC-1A) glass only, not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Jugs in tubs (ICC-3I) not over 2 gal. each and limited to 1 jug in each tub.<br>Steel barrels or drums:<br>(ICC-5H) lead-lined, not over 110 gal. cap.<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt.<br>Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap.<br>Portable tanks, lined (ICC-60) not over 5,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Formic acid.<br>Formic acid, solution. | *A colorless liquid with a pungent irritating odor.*<br>*It is combustible and will give off vapors which may form explosive mixtures in air.*<br>*In concentrated form it is dangerously caustic to the skin.*<br>*Solidifies at 35° F.*<br>*Miscible with water.* | White. | Stowage:<br>"On deck in open."<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Steel barrels or drums:<br>(ICC-5C, 5) not over 110 gal. cap.<br>(ICC-17H) STC, with special bag-type liners, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) latex rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 6,000 lb. gr. wt. marked "For Formic Acid Only."<br>Tank cars complying with ICC regulations stenciled "For Formic Acid Only."<br>For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Steel barrels or drums:<br>(ICC-5C, 5) not over 110 gal. cap.<br>(ICC-17H) STC, with special bag-type liners, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) latex rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Steel barrels or drums:<br>(ICC-5C, 5) not over 110 gal. cap.<br>(ICC-17H) STC, with special bag-type liners, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) latex rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Steel barrels or drums:<br>(ICC-5C, 5) not over 110 gal. cap.<br>(ICC-17H) STC, with special bag-type liners, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>Metal drums (ICC-37P) NRC, not over 5 gal cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) latex rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B, WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 6,000 lb. gr. wt. marked "For Formic Acid Only."<br>Tank cars complying with ICC regulations stenciled "For Formic Acid Only."<br>For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hexamethylene diamine solution. | *A colorless solution. Miscible with water.* | White | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal cap. (ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Metal drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 5 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 60 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hydriodic acid | *A clear, colorless or pale yellow fuming liquid.*<br>*Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating.*<br>*It is corrosive but will not cause fire.*<br>*Miscible with water.* | White | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Steel barrels or drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC not over 65 lb. gr. wt. | Stowage:<br>"On deck protected."<br>Outside containers:<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Steel barrels or drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC—1G) not over 15 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Steel barrels or drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums (ICC-5A) not over 110 gal. cap.<br>Steel barrels or drums (ICC-5C) not over 110 gal. cap.<br>Steel barrels or drums:<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hydrobromic acid | *A corrosive, fuming liquid varying from colorless to slightly yellow.*<br>*Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating.*<br>*Is corrosive but will not cause fire.*<br>*Miscible with water.*<br>Shall not be accepted in metal drums. | White | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>For hydrobromic acid not over 49% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. gr. wt.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Tank cars complying with ICC regulations.<br>For hydrobromic acid greater than 49% strength but not over 63% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap. | Stowage:<br>"On deck protected."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>For hydrobromic acid not over 49% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>For hydrobromic acid not over 49% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>For hydrobromic acid not over 49% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Metal drums (ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Tank cars complying with ICC regulations.<br>For hydrobromic acid greater than 49% strength but not over 63% strength:<br>Carboys, polyethylene, in plywood drums (ICC-1F) not over 13 gal. cap. |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, caution, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hydrochloric (muriatic) acid.<br>NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter. | *A corrosive, fuming liquid, varying from colorless to yellow.*<br>*Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating.*<br>*Will damage or destroy many articles by contact but does not cause fire.*<br>*Will dissolve tin, iron, and steel with evolution of hydrogen gas.*<br>*Noninflammable.*<br>*Miscible with water.*<br>Shall not be accepted in unlined metal drums.<br>Do not stow with sulfuric acid, nitric acid or chlorates.<br>Do not stow over other cargo. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap.<br>Carboys, polyethylene, wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S) polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T not over 200 lb. gr. wt.<br>Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.<br>Authorized for hydrochloric acid mixtures and compounds, cleaning, liquid (containing not over 28% hydrochloric (muriatic)) acid:<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Authorized only for hydrochloric acid not over 44½% strength by weight:<br>Tank cars complying with ICC regulations.<br>For export shipment only:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.<br>Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15% hydrochloric acid:<br>Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.<br>(See Note in columns 5, 6, and 7.) | Stowage:<br>"On deck protected."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap.<br>Carboys, polyethylene, wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S) polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T not over 200 lb. gr. wt.<br>Authorized for hydrochloric acid mixtures and compounds, cleaning, liquid (containing not over 28% hydrochloric (muriatic)) acid:<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>For export shipment only:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.<br>Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15% hydrochloric acid:<br>Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap.<br>Carboys, polyethylene, wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S) polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T not over 200 lb. gr. wt.<br>Motor truck vehicles having cargo tanks.<br>Authorized for hydrochloric acid mixtures and compounds, cleaning, liquid (containing not over 28% hydrochloric (muriatic)) acid:<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>For export shipment only:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.<br>Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15% hydrochloric acid:<br>Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap.<br>Carboys, polyethylene, wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S) polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T not over 200 lb. gr. wt.<br>Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.<br>Authorized for hydrochloric acid mixtures and compounds, cleaning, liquid (containing not over 28% hydrochloric (muriatic)) acid:<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Authorized only for hydrochloric acid not over 44½% strength by weight:<br>Tank cars complying with ICC regulations.<br>For export shipment only:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.<br>Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15% hydrochloric acid:<br>Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution. |
| Hydrochloric acid mixtures.<br>NOTE: When hydrochloric acid contains oils or solvents it must not be shipped in rubber-lined containers. | See "Hydrochloric acid". | White. | | | | |
| Hydrochloric (muriatic) acid solution, inhibited. | See "Hydrochloric (muriatic) acid". | White. | | | | |
| Compounds, cleaning, liquid (containing hydrochloric (muriatic) acid). | See "Hydrochloric (muriatic) acid."<br>Hydrochloric acid of not over 20% strength, and other corrosive liquids containing not over 20% hydrochloric acid, in inside containers not more than 8 fluid ounces capacity each, packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labeling requirements. | White. | | | | |

NOTE: Hydrochloric acid of not over 20% strength by weight (13.25° Baume) may also be accepted in: Wooden barrels or kegs (ICC-10A) asphalt lined not over 50 gal. cap.

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hydrofluoric acid | *A colorless, volatile, fuming corrosive, liquid with a pungent irritating, odor, used primarily for etching glass.*<br>*Dissolves glass and certain metals.*<br>*Produces painful burn when allowed to contact flesh.*<br>*Gives off fumes which are irritating in contact with mucous membrane and caustic in their effects.*<br>*Miscible with water.*<br>Observe special requirements for stowage on board vessels also transporting explosives.<br>Keep cool. | White | Stowage:<br>"On deck protected."<br>Outside containers:<br>Hydrofluoric acid not over 70% strength:<br>Steel barrels or drums (ICC-6J) WIC (ICC-2S polyethylene drum) not over 55 gal. cap.<br>Carboys, polyethylene, in plywood boxes, drums or wooden boxes (ICC-1F, 1G) not over 13 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC-ICC-2T, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 1 lb. cap. each, not over 65 lb. gr. wt.<br>Hydrofluoric acid not less than 60% or more than 80% strength:<br>Steel barrels or drums (ICC-5A) not over 55 gal. cap.<br>Hydrofluoric acid not over 60% strength:<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Hydrofluoric acid not over 82% strength:<br>Metal barrels or drums, lined (ICC-5D) not over 55 gal. cap.<br>Hydrofluoric acid not over 80% strength:<br>Tank cars complying with ICC regulations.<br>Hydrofluoric acid solutions and concentrations of 60% up to 60%, when shipped in unlined steel containers or metal tank cars, must be inhibited so that the corrosive effect on steel must not be greater than that of hydrofluoric acid of 60% concentration. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . | . . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Hydrofluosilicic acid (must be packed in accordance with ICC requirements). | *A clear, colorless fuming liquid.*<br>*It has a strong corrosive action on steel, lead, and glass.*<br>*It is caustic to the skin and will inflict severe burns.*<br>*Irritating to mucous membrane.*<br>*Miscible with water.*<br>Do not use paint in the vicinity of hydrofluosilicic acid. | White | Stowage:<br>"On deck protected."<br>Outside containers:<br>Wooden barrels or kegs:<br>(ICC–10A) lined with asphalt or other material of equal efficiency, resistant to hydrofluosilicic acid, not over 50 gal. cap.<br>(ICC–11A, 11B) WIC of natural rubber or ceresine. Outside containers not over 200 lb. net wt.<br>Wooden boxes, WIC of natural rubber or ceresine or other material of equal efficiency resistant to hydrofluosilicic acid (ICC–15A, 15B, 15C, 16A, 19A), not over 200 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Hydrofluosilicic acid of not over 40% strength may also be accepted in:<br>Steel barrels or drums, rubber-lined (ICC–6D), not over 55 gal. cap.<br>Rubber drums (ICC–43A) not over 30 gal. cap.<br>Hydrofluosilicic acid containing no free hydrofluoric acid or other ingredient which will attack glass may also be accepted in:<br>Carboys, boxed, glass only (ICC–1A) not over 13 gal. cap.<br>Carboys in kegs, glass only (ICC–1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC–1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC–1E) not over 7 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC–1X) STC, for export only, not over 6 gal. cap.<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Authorized only for hydrofluosilicic acid not exceeding 22% strength:<br>Fiberboard boxes (ICC–12B) WIC, not over 65 lb. gr. wt.<br>Carboys, in plywood drums, polyethylene (ICC–1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC–1G) not over 15 gal. cap.<br>Metal drums (ICC–6J) WIC (ICC–28 polyethylene) not over 55 gal. cap.<br>Metal drums (ICC–37F) NRC, not over 5 gal. cap. | Not permitted | Not permitted | Not permitted. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sodium aluminate, liquid. | *Hazardous in contact with organic substances and textiles.* Sodium aluminate, liquid, in inside containers of not more than 8 fluid ounces capacity each packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labeling requirements. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"On deck in open."<br>Outside containers:<br>Carboys, glass, in boxes, kegs or plywood drums:<br>(ICC-1A, 1B, 1C, 1E) not over 13 gal. cap.<br>(ICC-1D) not over 6½ gal. cap.<br>(ICC-1X) not over 6 gal. cap. for export.<br>Carboys, lead, metal jacketed:<br>(ICC-2S) not over 15 gal. cap<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes:<br>(ICC-1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC-5, 5A, 5C, 5M) not over 110 gal. cap.<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5H) lead lined, not over 110 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums:<br>(ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"On deck in open."<br>Outside containers:<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes:<br>(ICC-1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC-5, 5A, 5C) not over 110 gal. cap.<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5H) lead lined, not over 110 gal. cap.<br>(ICC-5M) monel, not over 55 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums:<br>(ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes:<br>(ICC-1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC-5, 5A, 5C) not over 110 gal. cap.<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5H) lead lined, not over 110 gal. cap.<br>(ICC-5M) monel, not over 55 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums:<br>(ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, glass, in boxes, kegs or plywood drums:<br>(ICC-1A, 1B, 1C, 1E) not over 13 gal. cap.<br>(ICC-1D) not over 6½ gal. cap.<br>(ICC-1X) not over 6 gal. cap.<br>Carboys, lead, metal jacketed:<br>(ICC-2S) not over 15 gal. cap.<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes:<br>(ICC-1F, 1G) not over 15 gal. cap.<br>Metal barrels or drums:<br>(ICC-5, 5A, 5C, 5M) not over 110 gal. cap.<br>(ICC-5D) rubber lined, not over 110 gal. cap.<br>(ICC-5H) lead lined, not over 110 gal. cap.<br>(ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>(ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap.<br>(ICC-6J) WIC ICC-2S polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums:<br>(ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks:<br>(ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sodium chlorite solution (not exceeding 40% sodium chlorite). | *A colorless, odorless liquid.*<br>*Oxidizing agent.*<br>*Miscible with water.*<br>*If allowed to dry in contact with organic material fire may result.*<br>*In event of spillage flush with large quantities of water.*<br>Observe containers carefully for signs of leakage, and reject any which are found leaking.<br>Do not stow with organic materials, inflammable liquids (red label), or explosives. | White | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes or metal crates:<br>(ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC 2S polyethylene) not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap. | Stowage:<br>"On deck protected."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes or metal crates:<br>(ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes or metal crates:<br>(ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Motor truck vehicles having cargo tanks.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.<br>Carboys, polyethylene in wooden boxes, plywood drums or boxes or metal crates:<br>(ICC-1F, 1G, 1H) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Steel barrels or drums (ICC-5D) rubber-lined, not over 110 gal. cap.<br>(ICC-5B, 6J, 37A) WIC (ICC-2S polyethylene) not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) rubber-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Motor truck vehicles having cargo tanks.<br>For export shipment only:<br>Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap. |
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*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sulfuric acid (oil of vitriol).<br>NOTE: For bulk shipments, see subchapter I (Cargo and Miscellaneous Vessels) of this chapter. | *Strongly corrosive, dense, oily liquid: colorless to dark brown, depending on purity.*<br>*Ordinary commercial (not pure) acid dissolves all metals, including platinum.*<br>*Concentrated (93%) acid attacks most metals slowly.*<br>*Dilute acid dissolves metals more rapidly, particularly if heated.*<br>*Sulfuric acid rapidly disintegrates wood, textiles and organic materials in general and is extremely corrosive to flesh, producing serious and slow-healing wounds.*<br>*Miscible with water in all proportions with evolution of heat.* | White. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Under deck" (Steel drums containing sulfuric acid only).<br>Outside containers:<br>For sulfuric acid of any concentration:<br>Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. gr. wt.<br>For sulfuric acid of concentrations of not less than 109% and not more than 115% (approximate):<br>("Under deck" stowage not permitted.)<br>Metal barrels or drums (ICC-5C) not over 35 gal. cap.<br>For sulfuric acid of concentrations not to exceed 100.5%:<br>Carboys, boxed, (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap.<br>For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baumé)):<br>Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood drums or boxes or metal crates (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt. | Stowage:<br>"On deck protected."<br>Outside containers:<br>For sulfuric acid of any concentration:<br>Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. gr. wt.<br>For sulfuric acid of concentrations not to exceed 100.5%:<br>Carboys, boxed, (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>For sulfuric acid of any concentration:<br>Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not xver 65 lb. gr. wt.<br>For sulfuric acid of concentrations not to exceed 100.5%:<br>Carboys, boxed, (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap.<br>For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baumé)):<br>Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>For sulfuric acid of any concentration:<br>Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub.<br>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap.<br>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. gr. wt.<br>For sulfuric acid of concentrations not to exceed 100.5%:<br>Carboys, boxed, (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap.<br>For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baumé)):<br>Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap.<br>Metal drums (ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>Carboys, polyethylene, in wooden boxes, plywood drums or boxes, or metal crates (ICC-1F, 1G, 1H) not over 13 gal. cap.<br>Wooden box (ICC-16A) WIC ICC-2T, not over 200 lb. gr. wt. |
| Sulfuric acid, fuming (oleum) (Nordhausen) (not permitted to be stowed "under deck"). | Stow well away from organic materials.<br>Observe containers for any signs of leakage and reject any which are found leaking.<br>In event of spillage, flush with large quantities of water.<br>Do not accept for transportation if packed in the same container with any other substance.<br>Must not be transported on any vessel carrying Class A or Class B explosives.<br>Observe special requirements for stowage on board vessels which are also transporting Class C explosives.<br>Sulfuric acid solutions of not over 25% concentrations, in inside containers of not more than 8 fluid ounces capacity each, packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labelling requirements. | White. | | | | |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sulfuric acid (oil of vitriol)—Continued<br>Sulfuric acid, fuming (oleum) (Nordhausen) (not permitted to be stowed "under deck")—Continued | | | Outside containers—Continued<br>For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:<br>Steel barrels or drums:<br>(ICC–5A) not over 55 gal. cap.<br>(ICC–5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.<br>(ICC–17F) STC, not over 55 gal. cap.<br>For sulfuric acid concentrations not over 70%:<br>Steel barrels or drums:<br>(ICC–6J) WIC (ICC–2S polyethylene) not over 55 gal. cap.<br>For sulfuric acid of concentrations 65.25% (approximately 1.589 specific gravity (52° Baumé)) or greater concentrations, provided the corrosive effect on steel measured at 100° is not greater than that of 52° Baumé commercial sulfuric acid:<br>Portable tanks (ICC–60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):<br>Metal drums, rubber-lined (ICC–6D) not over 110 gal. cap.<br>Portable tank, rubber-lined (ICC–60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Outside containers—Continued<br>For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:<br>Steel barrels or drums:<br>(ICC–5A) not over 55 gal. cap.<br>(ICC–5C) stainless steel, Types 304, 316, or 347, authorized only for sulfuric acid of 93 percent or greater strength.<br>For sulfuric acid concentrations not over 70%:<br>Steel barrels or drums: (ICC–6J) WIC (ICC–2S polyethylene) not over 55 gal. cap.<br>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap. | Outside containers—Continued<br>For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:<br>Steel barrels or drums:<br>(ICC–5A) not over 55 gal. cap.<br>(ICC–5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.<br>(ICC–17F) STC, not over 55 gal. cap.<br>For sulfuric acid concentrations not over 70%:<br>Steel barrels or drums:<br>(ICC–6J) WIC (ICC–2S polyethylene) not over 55 gal. cap. | Outside containers—Continued<br>For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:<br>Steel barrels or drums:<br>(ICC–5A) not over 55 gal. cap.<br>(ICC–5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.<br>(ICC–17F) STC, not over 55 gal. cap.<br>For sulfuric acid concentrations not over 70%:<br>Steel barrels or drums:<br>(ICC–6J) WIC (ICC–2S polyethylene) not over 55 gal. cap.<br>For sulfuric acid of concentrations 65.25% (approximately 1.589 specific gravity (52° Baumé)) or greater concentrations, provided the corrosive effect on steel measured at 100° is not greater than that of 52° Baumé commercial sulfuric acid:<br>Portable tanks (ICC–60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):<br>Metal drums, rubber-lined (ICC–5D) not over 110 gal. cap.<br>Portable tank, rubber-lined (ICC–60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table F—Classification: Corrosive liquids*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Water treatment compound, liquid. | *Usually a white syrupy liquid.*<br>*May be alkaline and corrosive.*<br>*May be corrosive to textiles and some metals.*<br>*May cause painful burns to the skin and tissue.*<br>*Soluble in water.* | White | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck protected."<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap.<br>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.<br>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.<br>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.<br>Carboys, in plywood drums, polyethylene (ICC-1F) not over 13 gal. cap.<br>Carboys, boxed, polyethylene (ICC-1G) not over 15 gal. cap.<br>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.<br>Carboys, lead, metal-jacketed (ICC-2S) not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A) not over 110 gal. cap.<br>(ICC-5C) not over 110 gal. cap.<br>(ICC-17H, 37A, 37B) STC, not over 55 gal. cap.<br>(ICC-6J) WIC ICC-2S, polyethylene, not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.<br>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.<br>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.<br>Monel drums (ICC-5M) not over 55 gal. cap.<br>Rubber drums (ICC-43A) not over 30 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A) asphalt-lined, not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.<br>Fiberboard boxes (ICC-12A, 12B), WIC, not over 65 lb. gr. wt.<br>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations. |

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING COMPRESSED GASES

1. Section 146.24–80 is amended by deleting the present text (revised requirements transferred to Subpart 98.20) and by inserting the following in lieu thereof:

§ 146.24–80 *Liquid chlorine in bulk.* (a) Liquid chlorine may be carried in bulk only in inspected and certificated steel tank barges or steel cargo barges. For applicable requirements, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

2. Section 146.24–85 is amended by deleting the present text (revised requirements transferred to § 98.25) and by inserting the following in lieu thereof:

§ 146.24–85 *Anhydrous ammonia in bulk.* (a) Anhydrous ammonia may be carried in bulk only in inspected and certificated cargo barges, tank barges, or cargo vessels. For applicable requirements, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

3. Section 146.24–100 *Table G—Classification: Compressed gases* is amended as follows:

§ 146.24–100 *Table G—Classification: Compressed gases*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Anhydrous ammonia.<br>Ammonia, anhydrous.<br>NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter. | *Noninflammable gas.*<br>*Toxic and suffocating even in small quantities (less than 1%). Pungent odor gives warning of dangerous quantities in air.*<br>*Lighter than air.*<br>*Weakly inflammable and explosive with about 16 to 27% in air, when involved in a fire at a temperature about 1,200° F.*<br>*Pressure about 515 lb. per square inch at 130° F.* | Green gas. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Tank cars complying with ICC regulations.<br>Tanks (ICC–106A500, 106A-800X).<br>Tank motor vehicle complying with ICC motor carrier regulations.<br>Authorized only for stowage:<br>"On deck protected," or<br>"On deck under cover."<br>Portable tanks (ICC–51) not over 8,000 lb. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.) | Ferry stowage (AA).<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Tank motor vehicle complying with ICC motor carrier regulations. | Ferry stowage (BB).<br>Containers:<br>Cylinders.<br>Tank cars complying with ICC regulations.<br>Tanks (ICC–106A500, 106A800X).<br>Tank motor vehicle complying with ICC motor carrier regulations.<br>Portable tanks (ICC–51) not over 8,000 lb. gr. wt. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Carbon dioxide.<br><br>Carbon dioxide, liquefied.<br><br>Carbon dioxide gas, liquefied (mining device). | *Noninflammable gas.*<br>*Will cause suffocation if breathed in excessive quantities.*<br>*Odorless.*<br>*Heavier than air.*<br>*Pressure usually about 2,000 lb. per square inch at 130° F.*<br>Do not stow with cyanides.<br>*Carbon dioxide mining devices consist of a long, small diameter cylinder charged with carbon dioxide.*<br>*In actual use heat is applied to the unit by means of a cartridge containing a low explosive.*<br>Hazards same as for "Carbon dioxide". | Green gas.<br><br>Green gas | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Tank cars complying with ICC regulations.<br>Tank motor vehicles complying with ICC motor carrier regulations.<br>Authorized only for stowage:<br>"On deck protected" or<br>"On deck under cover."<br>Special tank containers (approval required).<br>Portable tanks (ICC–51) not over 8,000 lb. gr. wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.) | Ferry stowage (AA).<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Tank motor vehicles complying with ICC motor carrier regulations. | Ferry stowage (BB):<br>Containers.<br>Cylinders.<br>Tank cars complying with ICC regulations.<br>Tank motor vehicles complying with ICC motor carrier regulations.<br>Portable tanks (ICC–51) not over 8,000 lb. gr. wt. |
| • • • | • • • | • • • | • • • | • • | • • • | • • • |

*Table G—Classification: Compressed gases*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Chlorine<br>NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter. | *Noninflammable gas*<br>*Poisonous: pungent odor; gives warning of dangerous quantities in air.*<br>*Even in small quantities has a choking, smothering effect and is very injurious to membranes and tissues.*<br>*Much heavier than air.*<br>*May cause combustion of acetylene, turpentine, and finely divided organic material.*<br>*Pressure about 210 lb. per sq. in. at 150° F.* | Green gas | Stowage:<br>"On deck in open."<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck away from heat."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Tank cars complying with ICC regulations.<br>Tanks (ICC-106A500, 106A-500X). | Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize. | Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize. | Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Methyl mercaptan | *Inflammable liquid or gas with a strong offensive odor.*<br>*Boiling point 15.7° F.*<br>*Vapor pressure 24.5 lb. per sq. in. at 68° F.*<br>*Heavier than air.* | Red gas | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Containers:<br>Cylinders:<br>(With valve protection cap.)<br>(With dished heads.)<br>(Boxed.)<br>Portable tanks (ICC-51) not over 8,000 lb. gr. wt.<br>Tank cars complying with ICC regulations | Not permitted | Not permitted | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING POISONOUS ARTICLES

1. Section 146.25-45 is amended by deleting paragraphs (e) and (f), as follows:

§ 146.25-45 *Limitation on all stowage.* * * *

(e) [Reserved.]

(f) [Reserved.]

2. Section 146.25-55 is amended by changing paragraph (a) to read as follows:

§ 146.25-55 *Exemptions for poisons, Class B.* (a) Poisonous liquids, Class B, as defined in this subpart except those enumerated in subparagraph (3) of this paragraph, packaged in tightly closed inside containers, securely cushioned to prevent breakage and packed as follows are exempt from specification packaging, marking other than name of contents, and labeling requirements:

(1) In glass or earthenware containers not over 1 quart capacity each, or in metal containers not over 1 gallon capacity each, packed in strong outside wooden boxes or barrels.

(2) In glass or earthenware containers not over 1 pint capacity each, or in metal containers not over 1 quart capacity each, packed in strong outside fiberboard boxes.

(3) The exemption provisions of this section do not apply to the following:

a. Aniline oil.

b. 4-Chloro-o-toluidine hydrochloride.

c. Chlorpicrin and chlorpicrin mixtures containing no compressed gas or poisonous liquid, class A.

d. Hexaethyl tetraphosphate and hexaethyl tetraphosphate mixtures containing more than 25 percent hexaethyl tetraphosphate by weight.

e. Hydrocyanic acid solutions.

f. Methyl bromide.

g. Methyl bromide and chlorpicrin mixture, liquid.

h. Methyl parathion and methyl parathion mixtures containing more than 25 percent methyl parathion by weight.

i. Motor fuel anti-knock compound.

j. Parathion and parathion mixtures containing more than 25 percent parathion by weight.

k. Phenyldichlorarsine.

l. Tetraethyl dithio pyrophosphate and tetraethyl dithio pyrophosphate mixtures containing more than 25 percent tetraethyl dithio pyrophosphate by weight.

m. Tetraethyl lead.

n. Tetraethyl pyrophosphate and tetraethyl pyrophosphate mixtures containing more than 25 percent tetraethyl pyrophosphate by weight.

o. Thiophosgene.

3. Section 146.25–200 *Table H—Classification: Class B; less dangerous poisons* is amended as follows:

§ 146.25–200 *Table H—Classification: Class B; less dangerous poisons*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Acetone cyanhydrin | *A clear, colorless to pale yellow liquid.*<br>*May decompose into acetone and hydrogen cyanide if not stabilized.*<br>*Very soluble in water.*<br>Protect from direct rays of the sun and all sources of artificial heat.<br>Stow away from living quarters and food stuff. | Poison | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NEC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars (complying with ICC regulations).<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Not permitted | Not permitted | Not permitted. |

*Table H—Classification; Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Alcohol, allyl<br>Allyl alcohol. | *A clear, colorless liquid having an unpleasant, irritating odor somewhat resembling mustard oil.*<br>*Violent effect on the eyes.*<br>*Inflammable with a flashpoint about 70° F.*<br>*Mixed in certain proportions with air, its vapors are explosive.*<br>*Immiscible with water.*<br>Protect from direct rays of the sun and all sources of artificial heat.<br>Stow away from living quarters and food stuff. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Not permitted | Not permitted | Not permitted. |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Aldrin mixtures, liquid, with more than 60% aldrin.<br>Aldrin mixtures, liquid, containing 60% or less of aldrin and no other material classed as dangerous in this part are not subject to the regulations of Subpart 146.25. | *Poisonous liquid mixtures. May be absorbed through the skin, through digestive organs, or from vapor through respiratory organs.*<br>Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for viscous mixtures or those which may become partially solid:<br>Steel barrels or drums (ICC-6A, 6B, 6C) not over 55 gal. cap. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Authorized only for viscous mixtures or those which may become partially solid:<br>Steel barrels or drums (ICC-6A, 6B, 6C) not over 55 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Authorized only for viscous mixtures or those which may become partially solid:<br>Steel barrels or drums (ICC-6A, 6B, 6C) not over 55 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E, 17H) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Authorized only for viscous mixtures or those which may become partially solid:<br>Steel barrels or drums (ICC-6A 6B, 6C) not over 55 gal. cap. |
| . . . | . . . | . . . | . . . | . . . | . . . | . . . |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Arsenic acid, liquid | *A concentrated, aqueous solution.*<br>*Has considerable corrosive effect on iron and steel.*<br>*Will contaminate foodstuffs.*<br>*Miscible with water.*<br>Stow away from living quarters.<br>Do not stow with corrosive liquids (white label). | Poison | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass (ICC-1C) not over 15 gal. cap.<br>Carboys boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in wooden boxes, plywood drums, or plywood boxes (ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 110 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars (ICC-103, 103A, 103W, 103A-W). | Stowage:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys, boxed, glass (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass (ICC-1C) not over 15 gal. cap.<br>Carboys boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in wooden boxes, plywood drums, or plywood boxes (ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 110 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys, boxed, glass (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass (ICC-1C) not over 15 gal. cap.<br>Carboys boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in wooden boxes, plywood drums, or plywood boxes (ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 110 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys, boxed, glass (ICC-1A) not over 13 gal. cap.<br>Carboys in kegs, glass (ICC-1C) not over 15 gal. cap.<br>Carboys boxed, glass (ICC-1D) not over 6½ gal. cap.<br>Carboys in wooden boxes, plywood drums, or plywood boxes (ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 110 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars (ICC-103, 103A, 103W, 103A-W). |

*Table H—Classification: Class B: less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Arsenic chloride (arsenous), liquid.<br>Arsenic trichloride, liquid. | *Fuming colorless oily liquid.*<br>*Caustic and corrosive.*<br>*Do not breathe fumes.*<br>*Will contaminate foodstuffs.*<br>Stow away from living quarters.<br>Do not stow with corrosive liquids (white label). | Poison | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 5 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Stowage:<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 5 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 5 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 5 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Arsenical compounds or mixtures, N. O. S. liquid. | *These substances are in the form of liquids or liquid paste.*<br>*Poisonous if taken internally.*<br>*Will contaminate foodstuffs.*<br>Stow away from living quarters and foodstuffs.<br>Do not stow with acids (white label). | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 15A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
| Arsenical dip, liquid (sheep dip). | *A liquid compound containing arsenic.*<br>*Poisonous.*<br>*Miscible with water.*<br>Stow away from foodstuffs. | Poison. | | | | |
| Arsenous and mercuric iodide solution, liquid. | *Solutions of arsenous iodide and mercuric iodide in water.*<br>*Also known as "Donovan's solution."*<br>*Poisonous if taken internally.*<br>Stow away from foodstuffs and living quarters. | Poison. | | | | |
| Bordeaux arsenites, liquid. | *Poisonous when taken into the digestive canal as by contaminated food or in the form of vapors through respiratory organs.*<br>Stow away from living quarters and foodstuffs. | Poison. | | | | |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Carbolic acid (phenol) liquid.<br>Phenol, liquid (liquid tar acid containing over 50% benzophenol). | *Dark, viscous liquid having a distinctive odor.*<br>*Will attack and burn skin and flesh.*<br>*Poisonous by absorption through the skin and through the digestive organs.*<br>*Soluble in water.*<br>Stow away from foodstuffs and living quarters. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A, 1C) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A), WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars (complying with ICC regulations). | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A, 1C) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars (complying with ICC regulations). |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Compounds, tree or weed killing, liquid. | Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. net wt.<br>Wooden boxes:<br>(ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiberboard boxes:<br>(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Tank cars complying with ICC regulations.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt. |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Dinitrobenzol, liquid | *Colorless to pale yellow liquid. Flashpoint variable depending on solvent, may be low. Slightly soluble in water.* Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 150 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Drugs, chemicals, medicines or cosmetics, N. O. S. (liquid).<br>See § 146.25-55 regarding "Exemptions for poisons, Class B" for limited quantity shipments. | *A unit substance or a compound classified as a less dangerous poison, Class B, in accordance with the definition contained herein, when prepared, packed and offered to the trade as drugs, chemicals, medicines or cosmetics.*<br>Stow away from living quarters, and foodstuffs.<br>Do not stow with acids (white label).<br>Keep cool. | Poison | Stowage.<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap. and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Insecticide, liquid | *Generally contains more or less of some highly poisonous substance, often an arsenic compound.*<br>*Do not breath air containing vapors of this substance.*<br>*Do not allow in contact with the skin.*<br>Stow away from living quarters and foodstuffs.<br>Do not stow with acids (white label). | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>ICC-5, 5A, 5B, 5C) not over 55 cap. gal.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 15A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Mercuric iodide, solution. | *Colorless to yellow-colored liquid.*<br>*Will contaminate foodstuffs.*<br>Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap. and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
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*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Methyl bromide, liquid (bromomethane). | *Colorless, transparent, volatile liquid. Chloroform-like odor.*<br>*Nonflammable*<br>*Exists as gas under usual temperatures. Liquid form has boiling point of 40° F*<br>Stow away from living quarters and foodstuffs.<br>Do not stow with acids (white label).<br>Keep cool. | Poison | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) with inside metal cans containing not over 1 lb. each. Outside containers not over 100 lb. net wt.<br>Fiberboard boxes (ICC–12B) with inside metal cans containing not over 1 lb. each. Outside containers not over 50 lb. net wt.<br>Cylinders (ICC–3A225, 3AA225, 3B225, 3E1800, 4A225, 4B225, 4BA225).<br>NOTE: Cylinders having a wall thickness of less than 0.08 in. must be packed in boxes or crates.<br>Metal spheres (ICC–4D300, 4D500) in strong boxes or crates.<br>Tank cars complying with ICC regulations.<br>Authorized only for mixtures containing not over 40% by weight of methyl bromide:<br>Metal barrels or drums:<br>(ICC–17C) STC, not over 5 gal. cap. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>Outside containers:<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) with inside metal cans containing not over 1 lb. each. Outside containers not over 100 lb. net wt.<br>Fiberboard boxes (ICC–12B) with inside metal cans containing not over 1 lb. each. Outside containers not over 50 lb. net wt.<br>Cylinders (ICC–3A225, 3AA225, 3B225, 3E1800, 4A225, 4B225, 4BA225).<br>NOTE: Cylinders having a wall thickness of less than 0.08 in. must be packed in boxes or crates.<br>Metal spheres (ICC–4D300, 4D500) in strong boxes or crates.<br>Authorized only for mixtures containing not over 40% by weight of methyl bromide:<br>Metal barrels or drums:<br>(ICC–17C) STC, not over 5 gal. cap. | Ferry stowage (AA).<br>Outside containers:<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) with inside metal cans containing not over 1 lb. each. Outside containers not over 100 lb. net wt.<br>Fiberboard boxes (ICC–12B) with inside metal cans containing not over 1 lb. each. Outside containers not over 50 lb. net wt.<br>Cylinders (ICC–3A225, 3AA225, 3B225, 3E1800, 4A225, 4B225, 4BA225).<br>NOTE: Cylinders having a wall thickness of less than 0.08 in. must be packed in boxes or crates.<br>Metal spheres (ICC–4D300, 4D500) in strong boxes or crates.<br>Authorized only for mixtures containing not over 40% by weight of methyl bromide:<br>Metal barrels or drums:<br>(ICC–17C) STC, not over 5 gal. cap. | Ferry stowage (BB).<br>Outside containers:<br>Wooden boxes (ICC–15A, 15B, 15C, 16A, 19A) with inside metal cans containing not over 1 lb. each. Outside containers not over 100 lb. net wt.<br>Fiberboard boxes (ICC–12B) with inside metal cans containing not over 1 lb. each. Outside containers not over 50 lb. net wt.<br>Cylinders (ICC–3A225, 3AA225, 3B225, 3E1800, 4A225, 4B225, 4BA225).<br>NOTE: Cylinders having a wall thickness of less than 0.08 in. must be packed in boxes or crates.<br>Metal spheres (ICC–4D300, 4D500) in strong boxes or crates.<br>Tank cars complying with ICC regulations.<br>Authorized only for mixtures containing not over 40% by weight of methyl bromide:<br>Metal barrels or drums:<br>(ICC–17C) STC, not over 5 gal. cap. |
| Methyl bromide and chloropicrin mixtures, liquid. | See: Methyl bromide, liquid. | Poison. | | | | |
| Methyl bromide and ethylene dibromide mixtures, liquid. | See: Methyl bromide, liquid. | Poison. | | | | |
| . . . | . . . | . . . | . . . | . . . | . . . | . |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Nicotine hydrochloride | *White deliquescent crystals.*<br>*Soluble in water.*<br>Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes(ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37B) STC, not over 10 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
| Nicotine, liquid | *Water-white oily liquid turning dark brown or black with age.*<br>*Volatile at ordinary temperature.*<br>*Miscible with water.*<br>Stow away from living quarters and foodstuffs. | Poison. | | | | |
| Nicotine sulfate, liquid | *Colorless solution having odor resembling tobacco.*<br>*Miscible with water.*<br>Stow away from living quarters and foodstuffs. | Poison. | | | | |
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*Table H—Classification: Class B; less dangerous poisons—Continued*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Nitrobenzol, liquid (oil of mirbane). | *A heavy, oily liquid, yellow or brownish color, having the odor of bitter almonds.*<br>*Ignites at a temperature of about 900° F. Gives off inflammable vapor.*<br>*Is in the form of bright yellow crystals below a temperature of about 45° F.*<br>*The vapors given off by this liquid are poisonous when inhaled.*<br>*Is a powerful narcotic poison when induced into the digestive organs.*<br>*May also be poisonous by absorption into the skin.*<br>*Will contaminate foodstuffs.*<br>*Slightly soluble in water.*<br>Stow away from living quarters and foodstuffs.<br>Protect from direct rays of the sun and all sources of artificial heat.<br>Keep cool. | Poison. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-37C, 17E) STC, not over 55 gal. cap.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |
| Nitrochlorbenzene, ortho, liquid. | *A heavy, oily, yellow liquid.*<br>*Immiscible with water.*<br>Hazards and precautions similar to "Nitrobenzol" above. | Poison. | | | | |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Nitrochlorbenzene, meta or para, solid. | *Pale yellow crystalline mass.*<br>*Dangerous if taken internally, or in the form of vapors through the respiratory organs.*<br>*Do not breathe air laden with the dust of these substances.*<br>*Do not allow excessive contact with the skin.*<br>*Insoluble in water.*<br>*Will contaminate foodstuffs.*<br>Stow away from living quarters and foodstuffs. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Under deck."<br>Outside containers:<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 6B, 6C) not over 1760 lb. gr. wt.<br>(ICC-6A) not over 880 lb. gr. wt.<br>(ICC-17H, 37A, 37B) STC, not over 375 lb. gr. wt. When material is fused solid 880 lb. gr. wt. authorized.<br>(ICC-17E) STC, not over 55 gal. cap. Authorized for nitrochlorbenzene, meta or para, solid.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 600 lb. net wt.<br>(ICC-11A) not over 115 lb. net wt. For paranitraniline, solid only, not over 385 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. net wt.<br>Wooden kits (ICC-18B) WPL, not over 30 lb. net wt.<br>Fiberboard boxes (ICC-12B, 12C) WIC, not over 50 lb. net wt.<br>Fiber drums:<br>(ICC-21A) not over 225 lb. net wt. For nitrochlorbenzene para and para-nitraniline, 400 lb. gr. wt. allowed.<br>(ICC-21B) not over 200 lb. net wt.<br>Plywood drums (ICC-22A) not over 115 lb. net wt.<br>Tank cars complying with ICC regulations. | Not permitted. | Not permitted. | Not permitted. |
| Paranitraniline (paranitroaniline) solid. | *Yellow crystalline powder.*<br>*Very slightly soluble in water.*<br>Protect from direct rays of sun and any sources of artificial heat.<br>Keep cool and dry. | Poison. | | | | |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Nitroxyol | *Colorless or yellow liquid or crystals, becoming reddish brown upon exposure.*<br>Stow away from living quarters and foodstuffs.<br>Protect from direct rays of sun and all sources of artificial heat.<br>Keep cool. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net. wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry Stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |
| . . . | . . . | . . . | . . . | . . . | . . | . . . |

*Table H—Classification: Class B; less dangerous poisons*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Poisonous liquids, N.O.S. | *May be any liquid classifying as a Less Dangerous Poison, Class B, in accordance with the definitions contained in these regulations, provided such liquid is not otherwise specified by name in these regulations.*<br>Stow away from living quarters and foodstuffs.<br>Do not stow with acids (white label).<br>Keep cool and well away from all sources of artificial heat. | Poison | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations.<br>(See Note in columns 5, 6, and 7.) | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (AA).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene. | Ferry stowage (BB).<br>Outside containers:<br>Carboys in wooden boxes, plywood drums, or plywood boxes:<br>(ICC-1A) glass, not over 13 gal. cap.<br>(ICC-1D, 1E) glass, not over 7 gal. cap.<br>(ICC-1F, 1G) polyethylene, not over 15 gal. cap.<br>Steel barrels or drums:<br>(ICC-5, 5A, 5B, 5C) not over 55 gal. cap.<br>(ICC-17C, 17E) STC, not over 55 gal. cap., and not exceeding 880 lb. gr. wt.<br>(ICC-37A, 37B) STC, not over 5 gal. cap.; authorized for pastes only.<br>(ICC-37P) NRC, not over 5 gal. cap.<br>Aluminum drums:<br>(ICC-42B, 42C, 42D, 42E) not over 55 gal. cap.<br>Wooden barrels or kegs:<br>(ICC-10A, 10B, 10C) not over 50 gal. cap., and not exceeding 600 lb. net wt.<br>(ICC-11A, 11B) WIC, not over 200 lb. gr. wt.<br>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt.<br>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.<br>Fiber drums:<br>(ICC-21B) WIC, not over 200 lb. net wt.<br>Cylinders as prescribed for any compressed gas except acetylene.<br>Tank cars complying with ICC regulations. |

NOTE: Poisonous liquids, N. O. S., must be packed in specification containers of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

4. Section 146.25–400 *Table H—Classification: Class D; radioactive materials* is amended to read as follows:

§ 146.25–400 *Table H—Classification: Class D; radioactive materials*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Radioactive materials groups I and II.<br>Cesium 137.<br>Cobalt 60.<br>Gold 198.<br>Iridium 192.<br>Radioactive materials N. O. S. | Group I: Radioactive materials that emit gamma rays only or both gamma and electrically charged corpuscular rays.<br>Group II: Radioactive materials that emit neutrons and either or both gamma and electrically charged corpuscular rays.<br>Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs, or with undeveloped films. Observe instructions and safety precautions as set forth in this subpart. | Radioactive materials group I or group II: Red. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC—15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Ferry stowage (AA).<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Ferry stowage (BB).<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. |
| Radioactive materials group III.<br>Radioactive materials, N. O. S. | Group III: Radioactive materials that emit electrically charged corpuscular rays only, i. e., alpha or beta etc., or any other radioactive material that is so shielded that the gamma radiation at the surface of the package does not exceed 10 milliroentgens per 24 hours at any time during transportation.<br>Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids, in cylinders, projectiles, or bombs, or with undeveloped films. Observe instructions and safety precautions as set forth in this subpart. | Radioactive materials, group III: Blue. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Ferry stowage (AA).<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. | Ferry stowage (BB).<br>Outside containers:<br>Authorized for not more than 2,700 millicuries:<br>Wooden boxes:<br>(ICC–15A, 15B, 19A, 19B) WIC.<br>Fiberboard boxes:<br>(ICC–12B) WIC.<br>Fiber drums:<br>(ICC–21A, 21B) WIC.<br>Metal barrels or drums:<br>(ICC–6A, 6B, 6C).<br>(ICC–17C, 17H) STC.<br>Authorized for not more than 300 curies:<br>Metal encased, lead or uranium metal-shielded containers (ICC–55).<br>Must be equipped with a seal.<br>Other approved containers.<br>Packaging and shielding requirements of this subpart must be complied with. |

*Table H—Classification: Class D; radioactive materials*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Radioactive materials as described under § 146.25-25 (a) and (b). | Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids, in cylinders, projectiles or bombs. Observe instructions and safety precautions as set forth in this subpart. | No label required. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck."<br>Outside containers: Strong outside containers with or without inside container, meeting the applicable requirements of § 146.25-25. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck."<br>Outside containers: Strong outside containers with or without inside container, meeting the applicable requirements of § 146.25-25. | Ferry stowage (AA).<br>Outside containers: Strong outside containers with or without inside container, meeting the applicable requirements of § 146.25-25. | Ferry stowage (BB).<br>Outside containers. Strong outside containers with or without inside container, meeting the applicable requirements of § 146.25-25. |
| Radioactive materials as described under § 146.25-25 (c). | Do not stow with explosives, flammable liquids compressed flammable gases, corrosive liquids, or poisonous gases or liquids, in cylinders, projectiles, or bombs. Observe instructions and safety precautions as set forth in this subpart. | No label required. | Stowage:<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks readily accessible."<br>"Under deck."<br>Outside containers: Strong outside containers with or without inside container, meeting the applicable requirements of § 146.25-25. | Not permitted. | Not permitted. | Not permitted. |

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING HAZARDOUS ARTICLES

1. Section 146.27-100 *Table K—Classification: Hazardous articles* is amended as follows:

(a) Delete the following items and all wording pertaining thereto in columns 1, 2, 3, 4, 5, 6 and 7:

(i) Bone, chipped (*heat treated*).
(ii) Camphor (*Crude, refined or synthetic*).
(iii) Cork, granulated.
(iv) Cork, ground.
(v) Fish oils.
(vi) *Lead-type dross.*
(vii) Manganese dioxide.
(viii) Shellac, raw.
(ix) Stick lac.

2. Section 146.27–100 *Table K—Classification: Hazardous articles* is further amended as follows:

*Table K—Classification: Hazardous articles*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Automobiles, motorcycles, tractors, or other self-propelled vehicles, *new or used, when offered for transportation without boxing or crating and containing gasoline, or other motor fuel within the fuel tank.* | *Motor vehicles when offered for transportation as cargo or "passenger's baggage" on inland or domestic voyages and driven on and off the vessel by a member of the crew or agent of the vessel; or when offered as in ferry service and driven on and/or off the vessel by the owner or operator of the vehicle.*<br>Gasoline tanks must be drained before loading vehicles destined for ocean-going voyages.<br>No marking required. | No label required. | Stowage:<br>"On deck in open."<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br><br>(See Note in columns 5, 6, and 7.) | Stowage:<br>"On deck in open" or "On deck protected", or if the vessel is provided with a compartment fitted with an overhead sprinkler system, inert gas or steam smothering system in any of the following locations such compartments may be utilized.<br>"On deck under cover."<br>"Tween decks."<br>"Under deck." | Ferry stowage:<br>In the vehicle gangways. | Ferry stowage:<br>"On deck in open" or "On deck protected", or in the covered vehicle gangways on board car ferries having an overhead sprinkler system in such places. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

NOTE 1: This does not include motor vehicles having on board dangerous articles as lading. For regulations governing transportation of such vehicles, see §§ 146.08-1 to 146.08-55, inclusive.

NOTE 2: Automobiles, motorcycles, tractors, or other self-propelled vehicles, new or used, with or without boxing or crating and containing no gasoline or other motor fuel within the motor or fuel tank may be accepted for transportation on any type vessel without restriction, provided no dangerous articles other than those enumerated below are packed within the crate o. vehicle:

(a) Two one-pint metal containers of retouching enamel, either hermetically sealed or closed with a secure friction cap.

(b) One tire repair kit containing a tube of cement of not more than 4 fluid ounces capacity, completely enclosed in an outer metal or fiber board container.

(c) One charged electric storage battery in position within the battery holder, provided the terminals are disconnected and protected against short circuit, or if shipped outside the holder, then secured to prevent any movement of same. If a battery is packed within a boxed or crated vehicle, "This side up" marking shall be required on the outside of the shipping box or crate.

(d) Such brake fluid as is actually contained within the brake mechanism.

(e) Motor vehicles shipped by, for or to the Departments of the Army, Navy or Air Force may also contain one gallon of electrolyte (acid) or corrosive battery fluid in an approved inside container, tightly and securely closed, packed in a strong outside container and cushioned therein on all sides with incombustible material in sufficient quantity to completely absorb the fluid contents in event of breakage. The outside container must be so blocked, braced or stayed within the vehicle or crate that it cannot change position during transit.

NOTE: The person driving a motor vehicle on board a vessel shall observe the following rules:
(1) Drive the vehicle to the location indicated by the vessel's representative.
(2) Securely set the brakes of the vehicle to prevent movement.
(3) Shut off the motor and do not restart same until the vessel has completed its voyage and docked.
(4) Shut off all vehicle lights and do not relight same until the vessel has completed its voyage.
(5) Make no repairs or adjustments to the vehicle while on board the vessel.
(6) Observe any instructions given by the vessel's representative during drive-on or drive-off operations.
Smoking by any person within the vehicle, while on board the vessel, is prohibited.

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| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

*Table K—Classification: Hazardous articles*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Cotton batting<br>Cotton batting dross.<br>Cotton wadding.<br>Cotton seed hull fiber or shavings, pulp or in cut linters. | *A product of cotton used principally for upholstery. Very susceptible to fire from sparks and also subject to spontaneous heating and possible ignition when wet or in contact with animal or vegetable oil or grease.*<br>Cotton batting, cotton batting dross and cotton wadding when packed in wooden, fiberboard or metal containers are not subject to the regulations in this part. | No label required. | Stowage:<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Bales—which shall be covered with bagging on at least three-fourths of their surface including both ends of the bale.<br>Wooden barrels or boxes.<br>Burlap bags compressed reasonably tight.<br>NOTE: Shall not be accepted for transportation unless securely baled or in tight containers. Reject wet or oil-stained bales. Observe same conditions of stowage with other dangerous articles as required for "Cotton." | Stowage:<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Bales—which shall be covered with bagging on at least three-fourths of their surface including both ends of the bale.<br>Wooden barrels or boxes.<br>Burlap bags compressed reasonably tight.<br>NOTE: Shall not be accepted for transportation unless securely baled or in tight containers. Reject wet or oil-stained bales. Observe same conditions of stowage with other dangerous articles as required for "Cotton." | Ferry stowage (AA).<br>Outside containers:<br>Bales—which shall be covered with bagging on at least three-fourths of their surface including both ends of the bale.<br>Wooden barrels or boxes.<br>Burlap bags compressed reasonably tight. | Ferry stowage (BB):<br>Outside containers:<br>Bales—which shall be covered with bagging on at least three-fourths of their surface including both ends of the bale.<br>Wooden barrels or boxes.<br>Burlap bags compressed reasonably tight. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Exothermic ferrochrome.<br>Exothermic ferromanganese.<br>Exothermic silicon-chrome. | *Gray or brown colored, hard, brittle solid. Mechanical, coherent mixture of the two metals with small amounts of oxidizers and bonding agents.*<br>*Produces no hazardous conditions in contact with water.*<br>*When heated to temperatures of 968° F. (350° C.) will burn briskly at a bright red heat and is difficult to extinguish with water or steam smothering system.*<br>Outside containers shall be marked "Exothermic ferrochrome", "Exothermic ferromanganese", or "Exothermic silicon-chrome", as the case may be. | No label required. | Stowage:<br>"On deck protected."<br>Outside containers:<br>Steel barrels or drums or cans, not over 750 lb. net wt., with or without slatted crates. | Stowage:<br>"On deck protected."<br>Outside containers:<br>Steel barrels or drums or cans, not over 750 lb. net wt., with or without slatted crates. | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums or cans, not over 750 lb. net wt., with or without slatted crates. | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums or cans, not over 750 lb. net wt., with or without slatted crates. |
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*Table K—Classification: Hazardous articles—Continued*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Paper scrap.<br>Paper waste<br>*(When dry, clean and free from oil.)* | *Scrap paper of all descriptions.*<br>*The hazard of this type of cargo lies in its susceptibility to fire from open flame or sparks.*<br>Do not stow in any compartment with corrosive liquids (white label) or oxidizing materials (yellow label).<br>No marking required. | No label required. | Stowage:<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Tight bales.<br>Unbaled consignments shall not be accepted. | Stowage:<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Tight bales.<br>Unbaled consignments shall not be accepted. | Ferry stowage (AA).<br>Outside containers:<br>Tight bales.<br>Unbaled consignments shall not be accepted. | Ferry stowage (BB).<br>Outside containers:<br>Tight bales.<br>Unbaled consignments shall no be accepted. |
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| Rosin (*Colophony*) | *Any of various solid or semisolid organic substances.*<br>*Chiefly of vegetable origin.*<br>*Rosin is a term applied to the hard resin, commonly amber colored, left after distilling off the volatile oil of turpentine.*<br>*Insoluble in water.*<br>*Readily combustible.*<br>Outside containers shall be marked either "Rosin" or "Hazardous article." | No label required. | Stowage:<br>"On deck in open."<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Steel barrels or drums.<br>Wooden barrels or kegs.<br>Wooden boxes.<br>Fiberboard boxes.<br>Fiber drums.<br>Burlap bags, paper lined, not over 100 lbs. net wt. (at least 7½ oz. burlap with waterproofed paper lining).<br>Multiwall paper bags, 6 ply (not over 100 lbs. net wt.) 4 ply (not over 50 lbs. net wt.): CFC. Rule 40-4 ply paper bags (not over 100 lbs. net wt.) | Stowage:<br>"On deck in open."<br>"On deck protected."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Steel barrels or drums.<br>Wooden barrels or kegs.<br>Wooden boxes.<br>Fiberboard boxes.<br>Fiber drums.<br>Burlap bags, paper lined, not over 100 lbs. net wt. (at least 7½ oz. burlap with waterproofed paper lining).<br>Multiwall paper bags, 6 ply (not over 100 lbs. net wt.) 4 ply (not over 50 lbs. net wt.): CFC. Rule 40-4 ply paper bags (not over 100 lbs. net wt.) | Ferry stowage (AA).<br>Outside containers:<br>Steel barrels or drums.<br>Wooden barrels or kegs.<br>Wooden boxes.<br>Fiberboard boxes.<br>Fiber drums.<br>Burlap bags, paper lined, not over 100 lbs. net wt. (at least 7½ oz. burlap with waterproofed paper lining).<br>Multiwall paper bags, 6 ply (not over 100 lbs. net wt.) 4 ply (not over 50 lbs. net wt.): CFC. Rule 40-4 ply paper bags (not over 100 lbs. net wt.) | Ferry stowage (BB).<br>Outside containers:<br>Steel barrels or drums.<br>Wooden barrels or kegs.<br>Wooden boxes.<br>Fiberboard boxes.<br>Fiber drums.<br>Burlap bags, paper lined, not over 100 lbs. net wt. (at least 7½ oz. burlap with waterproofed paper lining).<br>Multiwall paper bags, 6 ply (not over 100 lbs. net wt.) 4 ply (not over 50 lbs. net wt.): CFC. Rule 40-4 ply paper bags (not over 100 lbs. net wt.) |
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*Table K—Classification: Hazardous articles*—Continued

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| Sulfur<br>Flowers of sulfur.<br>Sulfur flower.<br>Brimstone. | *A mineral substance in the form of hard lumps or amorphous powder.*<br>*Insoluble in water.*<br>*Crude sulfur in bulk is dangerously inflammable and readily fusible by heat. Will ignite by friction. When burning gives off sulfur dioxide, a suffocating gas.*<br>*Sulfur dust given off in loading crude sulfur in proper proportions with air forms an explosive mixture and may be ignited by static electricity, open flame or spark.*<br>Do not stow sulfur with carbon, charcoal, lampblack, fats, oils, chlorates, phosphates, phosphorus, or other carriers of oxygen. In the presence of carbon, charcoal, lampblack, and other carbonaceous substances, fats and oils may produce spontaneous heating and ignition; while with chlorates, phosphates, phosphorus and other oxygen carriers it may produce explosive mixtures.<br>Outside barrels, boxes or bags shall be marked with the shipping name of the product as shown herein or "Hazardous Article." | No label required. | Stowage:<br>"On deck in open."<br>"On deck under cover."<br>"Tween decks."<br>"Under deck."<br>Outside containers:<br>Tight siftproof barrels and boxes.<br>Siftproof multiwall paper bags.<br>Siftproof paperlined burlap bags.<br>Tight siftproof railroad freight cars.<br>Bulk.<br><br>(See Note in columns 5, 6, and 7). | Stowage:<br>"On deck under cover."<br>"Tween decks."<br>Outside containers:<br>Tight siftproof barrels and boxes.<br>Siftproof multiwall paper bags.<br>Siftproof paperlined burlap bags. | Ferry stowage (AA).<br>Outside containers:<br>Tight siftproof barrels and boxes.<br>Siftproof multiwall paper bags.<br>Siftproof paperlined burlap bags.<br>Vehicles loaded with sulfur in bulk may be transported provided the loading shows no sign of sifting of the sulfur. | Ferry stowage (BB).<br>Outside containers:<br>Tight siftproof barrels and boxes.<br>Siftproof multiwall paper bags.<br>Siftproof paperlined burlap bags.<br>Tight siftproof railroad freight cars.<br>Vehicles loaded with sulfur in bulk may be transported provided the loading shows no sign of sifting of the sulfur. |
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NOTE: In the loading, handling and unloading of sulfur in bulk the following conditions shall be complied with:
(a) When sulfur in bulk is loaded in a deep hold with general cargo in the tween deck hold above the sulfur a dust proof wooden bulkhead enclosure shall be built in the hatchways from the over deck of the lower hold to the weather deck forming a tight enclosure to prevent sulfur dust entering the tween decks during loading.
(b) Holds shall be cleaned of all debris.
(c) Ceiling shall be made tight to prevent sulfur dust finding its way into the bilges; any chinking necessary in the way of tank tops or bilges shall be with non-combustible material.
(d) In order to minimize the movement of fine sulfur dust, cowl ventilators serving the hold into which sulfur is being loaded or discharged shall be blanked off to prevent circulation of air.
(e) "No Smoking" signs shall be conspicuously displayed, and the officer in charge shall ensure that they are observed.
(f) An oxygen breathing apparatus, or proper gas mask, shall be made readily available.
(g) A fire hose, preferably supplied with fresh water from a shore supply source, shall be available at each hatch through which sulfur is being worked.
(h) Upon completion of loading, the sulfur shall be leveled off and the sulfur dust deposited during the process of loading, being extremely inflammable, shall be cared for by sweeping or washing it down. This applies to the decks and to the overhead structure within the holds.
(j) After unloading, all residue of sulfur or sulfur dust shall be thoroughly cleaned out of cargo holds before loading other cargo therein.
(k) When sulfur is loaded by metal chute method, provision shall be made for proper grounding of the chute, using flexible cable to prevent static discharge.

(R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

SUBPART—DETAILED REGULATIONS GOVERNING THE TRANSPORTATION OF MILITARY EXPLOSIVES AND HAZARDOUS MUNITIONS ON BOARD VESSELS

1. The title for this subpart is amended to read as set forth above.

2. This subpart, consisting of §§ 146.29–1 to 146.29–100, inclusive, is amended to read as follows:

Sec.
146.29–1 Effective date.
146.29–3 Scope.
146.29–5 Regulations not applicable.
146.29–7 Port security regulations.
146.29–9 Import shipments.
146.29–11 Definitions and abbreviations.
146.29–13 Permit for handling military explosives.
146.29–15 Authority to load, handle or discharge; facilities and use.
146.29–17 Prohibited explosives.
146.29–19 Explosives loading supervisory detail.
146.29–21 Personnel identification.
146.29–23 Ship's officer present.
146.29–25 Fires and fire protection.
146.29–27 Fire hose.
146.29–29 Smoking.
146.29–31 Liquor or drugs.
146.29–33 Cargo working gear and equipment.
146.29–35 Lights, tools, and portable equipment.
146.29–37 Handling drafts of lumber.
146.29–39 Handling and slinging of explosives.
146.29–41 Weight per draft.
146.29–43 Requirement for the opening of hatches.
146.29–45 Loading or unloading military explosives and other cargo.
146.29–47 Packing and marking.
146.29–49 Stowage on board barges.
146.29–51 Stowage on board vessels.
146.29–53 Stowage of military explosives in hold containing coal.
146.29–55 Stowage of military explosives in holds containing household or personal effects and/or mail as cargo.
146.29–57 "On deck" stowage.
146.29–59 Stowage adjacent to other dangerous articles.
146.29–61 Stowage with nondangerous cargo in the same hold.
146.29–63 Stowage and dunnaging of ammunition and containers of explosives in bulk.
146.29–65 Damaged or leaking containers of explosives.
146.29–67 Defective ammunition.
146.29–69 Recoopering damaged packages.
146.29–71 Constructing magazines.
146.29–73 Preparation of magazines, decks, hatches and holds for handling military explosives.
146.29–75 Location of magazines and ammunition stowage.
146.29–77 Allocation of stowage.
146.29–79 Types of stowage.
146.29–81 Magazine Stowage A.
146.29–83 Ammunition stowage.
146.29–85 Chemical ammunition stowage.
146.29–87 Special stowage.
146.29–89 Portable magazine stowage.
146.29–91 Pyrotechnic stowage.
146.29–93 Stowage of blasting caps, detonators, primer detonators, etc.
146.29–95 Ventilation of magazine.
146.29–97 Statements of characteristic properties and hazards.
146.29–99 Explosives admixture charts.
146.29–100 Classification, handling and stowage chart.

AUTHORITY: §§ 146.29–1 to 146.29–100 issued under R. S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.

§ 146.29–1 *Effective date.* The regulations in this subpart will become effective on and after July 1, 1958.

§ 146.29–3 *Scope.* (a) The provisions of the regulations contained in this subpart apply to the transportation of military explosives, as cargo, on board all vessels that are subject to the regulations in this part. (See § 146.02–2.)

(b) Commercial shipments of explosives shall be tendered and transported in compliance with the applicable provisions of the regulations contained in the other subparts of this part.

(c) Where reference is made to other dangerous articles in this subpart, the regulations contained in §§ 146.02–1 to 146.27–100, inclusive, are applicable except as noted in § 146.29–5.

§ 146.29–5 *Regulations not applicable.* Sections 146.02–11, 146.02–21, 146.03–3, 146.06–9, 146.06–19, 146.09–1 to 146.09–6, inclusive, 146.10–6 (b), 146.20–15 to

146.20–51, inclusive, 146.20–85, 146.20–87, 146.20–90, 146.20–100 to 146.20–300, inclusive, 146.23–10 (d), 146.23–25 (a), (b) and (c); 146.24–55, the entries "Chemical ammunition containing Class 'A' poisons, liquids or gases," "chemical ammunition containing Class 'B' poisons, liquids or gases," and "chemical ammunition containing Class 'C' liquids, gases or solids" appearing in §§ 146.25–100, 146.25–200, and 146.25–300; 146.27–5 to 146.27–20, inclusive, and 146.27–100 are hereby declared inapplicable to the transportation of military explosives.

§ 146.29–7 *Port security regulations.* The applicable provisions of 33 CFR Parts 6, and 121 to 126, inclusive, shall, unless specifically authorized to the contrary by any provision of this subpart, be complied with by vessels, masters, agents, or charterers thereof and by all persons engaged in handling, loading, stowing or unloading explosives.

§ 146.29–9 *Import shipments.* Import shipments of military explosives shall be made in accordance with the provisions of the regulations in this subpart.

§ 146.29–11 *Definitions and abbreviations.* For the purpose of the regulations in this subpart, certain words, phrases, and abbreviations are defined as follows:

(a) *Military explosives.* Military explosives for the purpose of this subpart consist of all Interstate Commerce Commission's Classes A, B, and C explosives and hazardous munitions as defined below shipped by, for, or to the Departments of the Army, Navy, or Air Force of the United States or similar types of explosives shipped by, for, or to the government of any country whose defense is deemed vital to the defense of the United States. However, this definition shall not include those explosives shipped by, for, or to the Corps of Engineers, Department of the Army, for use in river and harbor works or other works under permits issued by that Agency, in which case the regulations in this part pertaining to commercial explosives shall apply. Military explosives are divided into three classes, as follows:

(1) *Ammunition.* Ammunition consists of all types of shells, projectiles, cartridges, grenades, bombs, mines, torpedoes, torpedo warheads, propellant powder charges, pyrotechnics, rockets, missiles, special weapons, chemical, smoke or incendiary ammunition, or other "made up" explosive devices that are utilized by the armed forces in the prosecution of a war.

(2) *Explosives in bulk.* Explosives in bulk consist of any high explosives, black powder, and low explosives or smokeless powder in accordance with the definitions in §§ 146.20–1, 146.20–7, and 146.20–9, when such substances are shipped in containers other than containers such as shells, bombs, grenades, mines, torpedoes, powder bags in individual containers, cartridges, fuzes, detonators, caps, primers, and similar "made up" ammunition devices.

(3) *Hazardous munitions.* Hazardous munitions for the purpose of these regulations are those dangerous articles used as oxidizers or fuels for missile propulsive systems. Such fuels and oxidizers as are listed in Tables XI–C and XI–D will be stowed and handled in accordance with these tables. For the purpose of these regulations these items shall be construed as "hazardous munitions" as defined above and not as "other dangerous articles" as noted in § 146.29–59.

(b) *Related terms*—(1) *Complete round.* A complete round of "cannon ammunition", "artillery ammunition" or "gun ammunition" includes ammunition used in cannon or gun of caliber .75 in. and above. It includes complete round with components. The complete round comprises all of the components necessary to fire the cannon or gun once. These components are, in general, the projectile (fuzed or unfuzed), the propellent charge and the primer. Depending upon both the type of propellent charge and the method of loading of components into the cannon, complete rounds of "cannon ammunition", "artillery ammunition" or "gun ammunition" are described as fixed, semi-fixed or separate loading ammunition.

(2) *Fixed ammunition.* Fixed ammunition describes "cannon ammunition", "artillery ammunition" or "gun ammunition" of the type comprising a cartridge case with primer, a propellent charge and a projectile (fuzed or unfuzed) all of these components being assembled as a unit for one firing.

(3) *Semi-fixed ammunition (Army).* Complete rounds composed of a projectile (fuzed) and a cartridge case with a primer and propellent charge which is in a cloth bag or bags of small size. The base of the projectile fits free in the neck of the cartridge case and may be readily detached from the cartridge case. The round is loaded into the cannon with the projectile assembled to the cartridge case and is handled similarly to fixed ammunition in loading. It may be packed with the projectile disassembled from the cartridge case containing the propellent. The projectile is usually assembled loosely in the cartridge case and is packed in the same individual container.

(4) *Semi-fixed ammunition (Navy).* Semi-fixed ammunition is ammunition in which the primer and the propellent charge are firmly secured in the cartridge case with the projectile separate from the cartridge case. The propellent charge is loaded loosely in the cartridge case, differing in this respect from that of the Army which is loaded in a bag. The end of the cartridge case is sealed with a prepared plug or disc which is fired with the powder and is usually shipped stowed in a metal tank. The projectile is shipped separate. The U. S. Army may refer to this ammunition as separate loading ammunition.

(5) *Separate loading ammunition.* Complete rounds in which the separate components—projectile, propellent charge and primer—are loaded into the cannon or gun separately are known as "separate loading ammunition". Although the propellent charge may be in one section, it is usually divided into parts with each part assembled in a bag packed in outside shipping containers which may be of wood, fiber or metal.

(6) *Definitions of other dangerous articles.* For definitions of:

(i) Inflammable liquids, see § 146.21–1.

(ii) Inflammable solids and oxidizing materials, see § 146.22–1.

(iii) Corrosive liquids, see § 146.23–1.

(iv) Compressed gases, see § 146.24–1.

(v) Poisons, Class A, see § 146.25–5; Class B, see § 146.25–10; Class C, see § 146.25–15; Class D, see § 146.25–20.

(vi) Combustible liquids, see § 146.26–1.

(vii) Hazardous articles, see § 146.27–1.

(7) *Cargo hold.* A cargo hold is a space allotted entirely to the carriage of cargo and is bounded by permanent steel bulkheads, decks and the shell of the vessel; the deck openings being provided with means of effectively closing the hold against the weather, and in the case of superimposed holds, effectively closing off each hold.

(8) *Tween deck hold.* A tween deck hold is a space located between the weather deck and the lower hold.

(9) *Hatch.* An opening in the weather deck and all decks below in the same vertical plane through which cargo, etc., is passed. This term is also used in the regulations in this subpart to designate the entire series of holds served through one weather deck hatch.

(10) *Compartment.* A compartment is any space formed by permanent steel bulkheads and the ship's side and decks. The limits of a compartment are determined by the integrity of the bulkheads, shell or decks forming its boundaries. Access openings fitted with doors, hatch covers (steel or wood) or bolted plates are accepted as preserving the integrity of deck, bulkhead or shell.

(11) *Shelter deck space.* A shelter deck space is a space available for cargo situated above the uppermost complete continuous deck (main deck) and the deck next above. Normally this space contains no permanent watertight transverse bulkheads except at its forward and aft extremities.

(12) *Adjacent hold; hold adjacent.* Any hold which has as one of its boundaries a permanent steel bulkhead that is common, either partially or in its entirety, to another hold shall be termed "adjacent hold" or "hold adjacent" to the focal hold. This shall not be construed as meaning a hold above or a hold below said hold nor shall it include a hold that is situated diagonally from said hold and has only a corner as a common boundary.

(13) *The hold above.* "The hold above" shall be a hold immediately above another hold having its deck, either partially or in its entirety, common to the overhead of the hold below.

(14) *Any hold above.* "Any hold above" shall mean any hold that is partially or entirely in the same vertical plane over another hold even though there may be a hold or holds intervening.

(15) *The hold below.* "The hold below" shall be a hold immediately below another hold having its overhead, either partially or in its entirety, common to the deck of the hold above.

(16) *Any hold below.* "Any hold below" shall mean any hold that is partially or entirely in the same vertical plane under another hold even though there may be a hold or holds intervening.

(17) *Cargo net.* A cargo net is a net made of fiber or wire rope and used as a means of handling loose or package cargo to and from the hold of a vessel.

(18) *Tray.* A tray is any flat group of boards securely fastened to bearers in order to provide a level surface for the loading of cargo. Trays are given various names, those applied in some ports differing from those in other ports, according to (i) shape, (ii) method of securing to cargo handling gear, or (iii) use or lack of sideboards in conjunction with the tray.

(19) *Skipboard.* A skipboard is the term generally applied to a rectangular or square tray without sideboards.

(20) *Pieplate.* A pieplate is the term generally applied to a round, oval or hexagonal tray without sideboards.

(21) *Pallet.* A pallet is a tray so designed as to be picked up by a fork truck or similar cargo handling equipment. Pallets are not usually equipped with sideboards.

(22) *Palletized unit.* Individual packages or unpackaged items stowed in a compact mass upon a pallet or skids and banded together and to the pallet or skids by metal straps to form a unit consisting of pallet and packages.

(23) *Dunnage.* Lumber of not less than 1-inch commercial thickness laid over tank tops, decks or against bulkheads, frames, plating, ladders, etc., or used for filling up voids, or fitted around the cargo for the purpose of preventing damage during transportation.

(24) *Type "A" dunnage floor.* A type "A" dunnage floor shall be constructed of two layers of commercial 1-inch dunnage of widths not less than 4 inches fitted as close as possible, edge to edge, and butt to butt, the top course being laid crosswise to the lower course, or of a single layer of 2-inch lumber of widths not less than 6 inches fitted as close as possible edge to edge, and butt to butt.

(25) *Type "B" dunnage floor.* A type "B" dunnage floor shall be constructed of one layer of commercial 1-inch thick dunnage of widths not less than 4 inches fitted as close as possible, edge to edge, and butt to butt.

(26) *Partition bulkhead.* A partition bulkhead is a temporary bulkhead constructed of commercial 1-inch lumber of widths not less than 4 inches, secured alternately on both sides of the uprights and spaced not more than 6 inches apart. The uprights are at least 2" x 4" size, spaced not more than 30 inches apart.

(27) *Division bulkhead.* (i) When part of a compartment or hold is utilized for the stowage of military explosives, the remaining portion of such compartment or hold may be utilized for the stowage of general cargo provided a temporary wooden bulkhead is constructed in the compartment or hold to completely divide and protect the stowage of military explosives from the general cargo. The scantlings and construction of such bulkheads shall be as follows: For tween deck compartments or holds construction shall be of commercial 2-inch boarding, secured on 4" x 6" uprights spaced not to exceed 30 inches center to center. For lower holds construction shall be of commercial 2-inch boarding secured on 6" x 6" uprights, spaced not more than 24 inches center to center. Random widths of boarding may be used. The boarding shall be close fitted edge to edge and butt to butt to form a smooth surface facing the explosive stowage. Nails shall not protrude beyond the surface of the boarding.

(ii) See § 146.29–81 (e) for construction of a partition bulkhead within a Class "A" magazine measuring more than 40 feet in any direction.

(iii) When general cargo is to be stowed adjacent to the exterior of the Class "A" magazine see § 146.29–61 (b).

(28) *Shoring.* Shoring is a method of securing cargo against movement sidewise or downward. In this subpart it describes the use of timbers fitted vertically or at an angle to the side of the stowage. It may also describe the use of timber to support a stowage from moving downward.

(29) *Tomming.* Tomming is a method of securing cargo against displacement of movement upwardly.

(30) *Tween deck height.* (i) For the purpose of load calculations the height of a tween deck is ascertained by measuring the distance from the heel of the overhead deck beam to the heel of the underdeck beam. (The thickness of the plating forming the deck is not deducted from the height.)

(ii) For height of a tween-deck affected by the sheer of a deck measure as above at both the forward and after ends of the hold and divide the sum of these heights by two.

(31) *Permitted explosives.* Permitted explosives as used in § 146.29–100 shall mean explosives that have compatibility in accordance with the admixture charts in § 146.29–99.

(32) *Overstow.* The term "overstow" as used in these regulations shall mean to stow directly over.

(33) *Detonating fuzes.* (i) Detonating fuzes, Class A are used in the military service to detonate the high explosive bursting charges of projectiles, mines, bombs, torpedoes, and grenades. In addition to a powerful detonator, they may contain several ounces of a high explosive, such as tetryl or dry nitrocellulose, all asembled in a heavy steel envelope. They may also contain a small amount of radioactive component.

(ii) Detonating fuzes, Class C are those that are so made and packed that they will not cause functioning of other fuzes, explosives, or explosive devices in the same or adjacent containers.

(34) *Ammunition for cannon.* Ammunition for cannon is fixed, semi-fixed or separate loading ammunition which is fired from a cannon, mortar, gun, howitzer or recoilless rifle.

(35) *Ammunition for cannon with projectiles.* Ammunition for cannon with explosive projectiles, gas projectiles, smoke projectiles, incendiary projectiles, illuminating projectiles, or shell is fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer, and the projectiles, or shell, fuzed or unfuzed.

(36) *Ammunition for cannon with empty projectiles, inert-loaded projectiles, solid projectiles or without projectiles, or shell, and catapult charges exceeding 2 inches in diameter.* Ammunition for cannon with empty projectiles, inert-loaded projectiles, solid projectiles or without projectiles, or shell, and catapult charges exceeding 2 inches in diameter, is fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer with empty, inert-loaded, or solid projectiles, or without projectiles, which is fired from a cannon, mortar, gun, howitzer or recoilless rifle.

(37) *Explosive projectiles.* Explosive projectiles are shells, projectiles, guided missiles with war heads, war heads, or rocket heads, loaded with explosives or bursting charges, with or without other materials, for use in cannons, guns, tubes, mortars or other firing or launching devices.

(38) *Grenades.* Grenades, hand or rifle, are small metal or other containers designed to be thrown by hand or projected from a rifle. They are filled with an explosive or a liquid, gas or solid material such as a toxic or tear gas or an incendiary or smoke producing material and a bursting charge.

(39) *Explosive bombs.* Explosive bombs are metal or other containers filled with explosives. They are used in warfare and include aeroplane bombs and depth bombs.

(40) *Explosive mines.* Explosive mines are metal containers filled with a high explosive.

(41) *Explosive torpedoes.* Explosive torpedoes, such as are used in warfare, are metal devices containing a means of propulsion and a quantity of high explosives.

(42) *Rocket ammunition.* Rocket ammunition is fixed ammunition which is fired from a tube, launcher, rails, trough, or other device as distinguished from cannon ammunition which is fired from a cannon, gun, or mortar.

(43) *Ammunition for small arms with explosive bullets or explosive projectiles.* Ammunition for small arms with explosive bullets or ammunition for small arms with explosive projectiles is fixed ammunition to be used in machine guns or similar fire arms and consists of a metallic cartridge case, the primer and the propelling charge, with explosive bullet or explosive projectile with or without detonating fuze, the component parts necessary for one firing being all in one assembly.

(44) *Small-arms ammunition.* Small-arms ammunition is fixed ammunition consisting of a metallic composition or paper cartridge case, a primer, and a propelling charge, with or without bullet, shot, tear gas material, tracer components, or incendiary compositions or mixtures, but not including bullets loaded with high explosives, and is further limited to the following:

(i) Ammunition designed to be fired from a pistol, revolver, rifle, or shotgun held by the hand or to the shoulder.

(ii) Ammunition of caliber less than .75 designed to be fired from machine guns.

(iii) Blank cartridges including canopy remover cartridges, starter car-

tridges, and seat ejector cartridges, contaitning not more than 250 grains of propellant powder.

(45) *Chemical ammunition.* Chemical ammunition used in warfare is all kinds of explosive chemical projectiles, shells, bombs, grenades, etc., loaded with toxic, tear, or other gas, smoke or incendiary agent, also such miscellaneous apparatus as cloud-gas cylinders, smoke generators, etc., that may be utilized to project chemicals.

(46) *Boosters, bursters and supplementary charges.* Boosters and supplementary charges consist of a casing containing a high explosive and are used to increase the intensity of explosion of the detonator of a detonating fuze. Bursters consist of a casing containing a high explosive and are used to rupture a projectile or bomb to permit release of its contents.

(47) *Jet thrust units (jato), explosive (Class A), or igniters jet thrust (jato), explosive (Class A).* Jet thrust units (jato), explosive (Class A), are metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Under certain conditions the chemical fuel with which the unit is loaded may explode. Jet thrust units are designed to be ignited by an electric igniter. They are used to assist aeroplanes to take off, to propel large missiles and to drive moving targets for practice firing. Igniters, jet thrust (jato), explosive (Class A), are devices consisting of an electrically operated or remotely controlled igniting element and a fast-burning composition assembled in a unit for use in igniting the propelling charge of jet thrust units. Under certain conditions the burning composition may explode.

(48) *Propellant explosives, Class A.* Propellant explosives, Class A, are solid chemicals or solid chemical mixtures which are designed to function by rapid combustion of successive layers, generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Propellant explosives, Class A, include some types of smokeless powder and some types of solid propellant explosives for jet thrust units, rockets, or other devices. Any propellant explosive is Class A which detonates in any one out of five trials when tested in the packages in which it is offered for transportation. In conducting the test, one propellant contained shall be surrounded by inert loaded containers of the same weight, including one inert container placed on top of the propellant container. The propellant shall be ignited by means of a commercial electric squib placed within 4 inches of the bottom of the container. The presence of a crater and absence of flame shall be considered as evidences of detonation.

(49) *Propellant explosives, Class B.* Propellant explosives, Class B, are solid chemicals or solid chemical mixtures which function by rapid combustion of successive layers, generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Any propellant explosive is Class B which fails to detonate in five trials when tested in the packages in which it is offered for shipment. (See (48) for test.) Propellant explosives, Class B, include smokeless powder for small arms, smokeless powder for cannon, smokeless powder or solid propellant explosives for rockets, jet thrust units, or other devices. Black powder is not included in this classification.

(50) *Jet thrust units (jato), Class B.* Jet thrust units (jato), Class B are metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Jet thrust units are designed to be ignited by an electric igniter. They are used to assist aeroplanes to take off, to propel large missiles, and to drive moving targets for practice firing.

(i) Igniters, jet thrust (jato), Class B, are devices consisting of an electrically operated or remotely controlled igniting element and a fast-burning composition assembled in a unit for use in igniting the propelling charge of jet thrust units.

(ii) Starter cartridges, jet engine, consist of plastic and/or rubber cases, each containing a pressed cylindrical block of propellant explosive and having in the top of the case a small plastic compartment that encloses an electric squib, small amounts of black powder, and smokeless powder, which constitute an igniter. The starter cartridge is used to activate a mechanical starter for jet engines.

(51) *Special fireworks.* Special fireworks are manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion. Examples are toy torpedoes, railway torpedoes, some firecrackers and salutes, exhibition display pieces, aeroplane flares, illuminating projectiles, incendiary projectiles or incendiary bombs and smoke projectiles or smoke bombs fuzed or unfuzed and containing expelling charges but without bursting charges, hand or rifle grenades with ignition elements but not containing bursting charges, flash powders in inner units not exceeding 2 ounces each, flash sheets in interior packages, flash powder or spreader cartridges containing not over 72 grains of flash powder each and flash cartridges consisting of a paper cartridge shell, small-arms primer, and flash composition, not exceeding 180 grains all assembled in one piece. Fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose, pyrotechnic composition will not be present in packages in transportation.

(52) *Percussion fuzes, combination fuzes, and time fuzes.* Percussion fuzes, combination fuzes, and time fuzes are devices designed to ignite powder charges of ammunition or to initiate an intermediate charge (booster) in projectiles, bombs, etc. When such fuzes are assembled with booster charges they are properly described as "detonating fuzes".

(53) *Tracer fuzes and tracers.* Tracer fuzes and tracers are devices which are attached to projectiles and contain a slow-burning composition to show the flight of projectiles at night.

(54) *Cartridge bags, empty, with black powder igniters.* Cartridge bags, empty, with black powder igniters consist of empty bags having attached thereto an igniter composed of black powder.

(55) *Igniters.* Igniters consist of fiberboard, plastic, paper or metal tubes containing a small quantity of igniting compound which is ignited by the action of a primer, pull wire or scratch composition.

(56) *Primers.* Primers are devices used to ignite the powder charges of ammunition or the black powder bursting charges of projectiles. For small-arms ammunition the primers are "small-arms primers" or "percussion caps".

(57) *On deck.* "On deck" means that that article may be stowed on the open weather deck of the vessel.

(c) *Abbreviations.*

| | |
|---|---|
| AA | Antiaircraft. |
| AAC | Antiaircraft common. |
| AACom | Antiaircraft common. |
| AC | Aircraft cannon. |
| AC | Hydrocyanic acid. |
| A. C. E. I. S. | Aircraft emergency identification signals. |
| A. D. F. | Auxiliary detonating fuze. |
| AIC | Ammunition identification code (Army). |
| ALN | Ammunition lot number. |
| Amm | Ammunition. |
| Ammo | Ammunition. |
| AP | Armor-piercing. |
| APC | Armor-piercing capped. |
| APT | Armor-piercing tracer. |
| ASSEM | Assembled. |
| AT | Anti-tank. |
| Aux | Auxiliary. |
| Aux Det | Auxiliary detonating fuze. |
| BBC | Brombenzylcyanide (tear gas). |
| BC | Bursting charge. |
| BD | Base detonating. |
| BDF | Base detonating fuze. |
| BL and P | Blind loaded and plugged. |
| BL and T | Blind loaded and tracer. |
| BP | Black powder. |
| BUORD | Bureau of Ordnance. |
| BUR CHG | Bursting charge. |
| CAL | Caliber. |
| CCIP | Case combination ignition primer. |
| CHG | Charge. |
| CG | Phosgene. |
| CK | Cyanogen chloride. |
| CL | Chlorine. |
| Cml-C | Chemical Corps. |
| CNS | Chloracetophenone solution (tear gas). |
| COM | Common. |
| Comp A | RDX-War Explosive. |
| Comp B | RDX-TNT Explosive. |
| Comp C | Plastic type RDX explosive. |
| Cor. L. | Corrosive Liquid. |
| CPI | Case percussion igniter. |
| CPP | Case precussion primer. |
| CT-TNT | Case TNT. |
| D | Explosive "D" (ammonium picrate). |
| DA | Diphenylchlor arsine. |
| DC | Depth charge. |
| DDR | Dummy drill. |
| DEMO | Demolition. |
| DM | Adamsite (sneeze gas). |
| DNT | Dinitrotoluene. |
| DP | Diphosgene. |
| EX | Experimental. |
| EXP | Expellant or explosive. |
| EXP "D" | Explosive "D". |
| F | Fuze. |
| FC | Full charge. |
| FFAR | Folding fin aircraft rocket. |
| FFFG | Fine fine fine grain (black powder). |

FFG ..... Fine fine grain (black powder).
FG ..... Fine grain (black powder).
F. G. ..... Flammable compressed gas.
F. L. ..... Flammable liquid.
FNH ..... Flashless, nonhygroscopic.
FP ..... Flashless pellets.
FRAG ..... Fragmentation.
FM ..... FM smoke mix (titanium tetrachloride).
FS ..... FS smoke mix (sulfur trioxide).
F. S. ..... Flammable solid.
GB ..... Isopropyl methylphosphonofluoridate nerve gas).
GP ..... General purpose.
H ..... Mustard gas.
HBX ..... RDX-TNT-AL type explosive.
HC ..... High capacity.
HC ..... Hexachlorethane mixture (smoke).
HD ..... Distilled mustard.
HE ..... High explosive.
HEAT ..... High explosive anti-tank.
HEI ..... High explosive incendiary.
HETT ..... High explosive incendiary tracer.
HET ..... High explosive tracer.
HPAG ..... High performance air to ground (rocket).
HN ..... Nitrogen mustard gas.
HVAR ..... High velocity aircraft rocket.
ICC ..... Interstate Commerce Commission.
ILLUM ..... Illuminating.
IM ..... Thickened gasoline.
IN ..... Inert.
INCEND ..... Incendiary.
L ..... Lewisite.
LC ..... Light case.
LE ..... Low explosive.
L and F ..... Loaded and fuzed.
L and P ..... Loaded and plugged.
M ..... Model (Army).
Maj Cal ..... Major caliber.
MCBD ..... Major caliber base detonating.
MG ..... Magnesium.
MK ..... Mark.
MM ..... Millimeter.
MIN CAL ..... Minor caliber.
Mod ..... Modification.
MTF ..... Mechanical time fuze.
NC ..... Nitrocellulose.
NF ..... Nose fuze.
NH ..... Non-hygroscopic.
Nonf. G ..... Nonflammable compressed gas.
NP ..... Thickened gasoline.
O/H ..... Overhauled.
ORD ..... Ordnance.
Oxy M. ..... Oxidizing material.
PD ..... Point detonating.
PDF ..... Point detonating fuze.
PENT ..... Pentolite.
PERC ..... Percussion.
Pois. A ..... Poison gas or liquid, Class A.
Pois. B ..... Poison liquid or solid, Class B.
Pois. C ..... Tear gas, Class C.
Pois. D ..... Radioactive material, Class D.
PRAC ..... Practice.
PRI ..... Primer.
PROJ ..... Projectile.
PS ..... Chlorpicrin.
PT ..... Thickened fuel.
PWP ..... Plasticized white phosphorus.
RD ..... Round.
RDX ..... Cyclotrimethylenetrinitramine (cyclonite).
SA ..... Small arms.
SAP ..... Semi-armor piercing.
SCAR ..... Sub-caliber aircraft rocket.
SEIS ..... Ship's emergency identification signals.
SF ..... Semi-fixed.
SP ..... Smokeless powder.
SQ ..... Super quick.
T ..... Tentative model designation.
TET ..... Tetryl (trinitrophenylmethyl nitramine).
TF ..... Time fuze.
TH ..... Thermate or Thermite.
TNT ..... Trinitrotoluene.
TPX ..... Torpex.
VT ..... Variable time (Proximity) (VT).
w ..... with.
w/o ..... without.
WP ..... White phosphorous.

§ 146.29–13 *Permit for handling military explosives.* (a) Shipments of military explosives and military lethal chemicals except small arms ammunition without explosive bullets shall not be laden on nor discharged from any vessel at any port or place in the United States, its territories or possessions (not including the Panama Canal Zone) until authorization has been obtained by the owner, agent, charterer, master, or person in charge of the vessel from the District Commander of the U. S. Coast Guard, Captain of the Port, or other officer designated by the District Commander.

(b) Before a permit is issued authorizing the loading or discharging of military explosives or military lethal chemicals in accordance with paragraph (a) of this section, the permittee shall file a written application for a permit authorizing the loading or discharging. When filed, the application for loading shall be accompanied by a preliminary manifest of all explosives or other dangerous articles comprising the cargo of the vessel together with a preliminary cargo stowage plan showing the proposed stowage of all such cargo. Changes in final stowage from that shown in the preliminary cargo stowage plan may be made upon approval of the issuing officer.

§ 146.29–15 *Authority to load, handle or discharge; facilities and use.* (a) Military explosives, except small arms without explosive bullets, shall not be handled, stowed, stored, loaded on, or discharged from a vessel except at one of the following:

(1) Explosives anchorages; areas upon the navigable waters that are designated explosives anchorages under the applicable provisions of 33 CFR Part 202 (Anchorage Regulations) within which a vessel may anchor or moor to handle, stow, store, load, or discharge explosives as cargo.

(2) Waterfront facilities approved by the Captain of the Port or District Commander as explosives loading piers to which a vessel may moor to handle, stow, store, load, or discharge military explosives as cargo.

(3) Waterfront facilities approved by the Captain of the Port or District Commander as ammunition loading piers to which a vessel may moor to handle, stow, store, load, or discharge ammunition as cargo except the following classes: II–A, IX–A, IX–B, IX–C, X–A, X–B, X–C, X–D, XI–A, XI–B, XI–C and XI–D.

(4) The Captain of the Port or District Commander may designate a temporary location for a specific loading of Classes XI–A, XI–B, XI–C and XI–D ammunition.

(b) A vessel, subject to the regulations in this part, may load or discharge military explosives at any Army or Navy depot, arsenal, navy yard, port of embarkation or other facility under the direct control and operation of the Navy, or Army, provided a permit authorizing such loading has been granted by the Captain of the Port. (See §§ 146.29–19 and 146.29–21.)

(c) In an emergency arising by reason of military necessity or casualty, a vessel may upon authorization by a Captain of the Port, load or discharge military explosives in any location authorized by said Captain of the Port.

§ 146.29–17 *Prohibited explosives.* (a) Explosives prohibited by subsection 3 of R. S. 4472, as amended (46 U. S. C. 170) (fulminates or other detonating compounds in bulk in dry condition, or explosive compositions that ignite spontaneously or undergo marked decomposition when subjected for 48 consecutive hours to a temperature of 167 degrees Fahrenheit, or compositions containing an ammonium salt and a chlorate, or other like explosives) shall not be accepted by any vessel.

(b) A passenger vessel shall not accept any Class A or Class B military explosives for transportation as cargo.

§ 146.29–19 *Explosives loading supervisory detail.* (a) There may be assigned to every vessel, subject to the regulations in this part, loading, handling, or discharging military explosives at an explosives anchorage or waterfront facility as may be approved by the Captain of the Port or the District Commander for the loading or unloading of military explosives, a Coast Guard detail to supervise such loading, handling or discharging. The owners, agents, charterers, masters or persons in charge of the vessel and all persons engaged in the handling, loading and stowage of the military explosives shall obey all orders, oral or written, that are given by the person in charge of such assigned detail.

(b) A vessel, subject to the regulations in this part, loading, handling, or discharging military explosives except small arms ammunition without explosive bullets at a Navy or Army depot, arsenal, navy yard, port of embarkation or other facility under the direct control and operation of the Navy or Army shall apply to the Captain of the Port for a permit for such loading, handling or discharging. A Coast Guard detail may be assigned to such a vessel unless the Commanding Officer of such Navy or Army facility declines the detail.

§ 146.29–21 *Personnel identification.* The provisions of this section shall apply to vessels loading, handling or discharging military explosives in accordance with the provisions of § 146.29–19 (a).

(a) No person shall enter upon a vessel loading, handling, or discharging military explosives unless such person first identifies himself to the satisfaction of the Coast Guard detail.

(b) Every person who is permitted to enter into a magazine or a hold or compartment of a vessel wherein military explosives are being handled or stowed shall provide the Coast Guard repre-

sentative with his name and address and the name and address of the firm employing him, furnishing satisfactory identification to substantiate such information.

(c) A person who, for any reason, is requested to leave a vessel loading, handling or discharging military explosives by the person in charge of the Coast Guard detail shall immediately obey the request and not return until permission is granted.

§ 146.29-23 *Ship's officer present.* (a) During the entire operation involving the building of a magazine, the preparation of holds, and the actual handling and stowage of military explosives, it shall be the responsibility of the master of the vessel to assign a deck officer of the vessel who shall be in constant attendance. It shall be these officers' responsibility to see that the provisions of the regulations in this part insofar as such provisions apply to the vessel, are complied with.

(b) It shall be these officers' further responsibility at the end of the work shift to see that all means of access to the partially loaded holds are closed off in such a manner as to provide the maximum safety and protection for the explosives stowed within the hold.

§ 146.29-25 *Fires and fire protection.* (a) No unnecessary fire shall be permitted on a dock, lighter, or vessel while loading, handling, or discharging military explosives.

(b) Every fire deemed necessary must be properly safeguarded and for the entire period of cargo transfer shall be in constant charge of a competent person assigned for that purpose by the master or by the person in charge of the vessel or by the person in charge of the dock.

(c) (1) Every vessel engaged in the handling and transfer of military explosives and equipped with means for power, heating, cooking, or lighting involving use of smoke pipes or stacks shall have such smoke pipes and/or stacks protected by spark screens. For the purpose of screening smoke pipes, vessels shall be divided into two categories. Large or ocean vessels shall have their main smoke pipes protected by screens of not larger than ½-inch mesh and small or inland vessels and small or auxiliary smoke pipes on large vessels by screens not larger than ¼-inch mesh.

(2) Insofar as practicable, unless the barge, lighter, etc. is loading or discharging military explosives to or from the vessel, barges, lighters, towboats, and other types of vessels shall not come alongside a vessel handling, stowing, storing, loading, discharging or transporting military explosives opposite the area where hatches serving a hold containing explosives are open. (See § 146.-29-73 (f).)

(3) This paragraph is not applicable to vessels transiting main channels contiguous to explosives loading facilities or anchorages.

(4) Vessels loading or unloading Class I ammunition at waterfront facilities not designated by the Captain of the Port as explosives loading piers do not require screening of smoke pipes and/or stacks.

(d) Welding or cutting operations involving the use of open flames or arc shall not be undertaken on a vessel having military explosives on board as cargo, except in case of an emergency affecting the security of a vessel, or for the purpose of welding pad eyes, angle bars or other devices to the deck for securing deck cargo. Such welding or cutting shall be done only on special permission of the Captain of the Port, and then only in the presence of an officer of the Coast Guard detail and in conformity with said officer's instructions.

(e) The cleaning of fireside of boilers shall not be undertaken on a vessel while at an explosives or ammunition loading facility or anchorage except upon express permission of the Captain of the Port.

(f) All tubes and uptakes of the vessel must be thoroughly swept or blown and reasonably free of soot prior to the arrival of the vessel at an explosives or ammunition loading facility or anchorage. A vessel at an explosives ammunition loading facility or anchorage shall not blow tubes or uptakes except upon permission of the Captain of the Port and then the operation shall be under the supervision of the master or person in charge of the vessel with a licensed engineer in attendance.

(g) Bunkering of a vessel shall not be done while the vessel is at an explosives loading or ammunition loading waterfront facility. When at an anchorage, an explosives laden vessel may engage in bunkering operations provided explosives are not being loaded, handled, or discharged, and all holds in which explosives are stowed are secured.

(h) A vessel at an explosives or ammunition loading facility or anchorage shall not transfer fuel oil between its own fuel oil storage tanks or from its storage tanks to the settling tank, except under the close supervision of a licensed engineer who shall be in constant attendance until the operation is completed.

(j) The transfer of lubricating oils and cleaning oils, either from containers on board the vessel or by pipeline or hose shall be prohibited at an explosives or ammunition loading facility. However, the transfer on board the vessel of galley fuel oil may be authorized by the Captain of the Port when the galley stove is cold, or when the vessel is equipped with an overflow system which returns surplus fuel oil from the galley tanks back into the main storage tanks provided such transfer is under the supervision of the master or person in charge of the vessel with a licensed engineer in attendance.

(k) The fueling of powered lifeboats or units of the vessel's machinery shall not be done while the vessel is at an explosives or ammunition loading facility.

(l) Boiler room and engine room bilges must be clean and free of oil or unnecessary residue before the vessel proceeds to an explosives or ammunition loading facility or anchorage, and it is further required that the bilges be maintained in this condition during the entire time the vessel is moored at the explosives or ammunition loading facility or anchorage. Attention is invited to the provisions of the Oil Pollution Act, 1924, and the Refuse Act, 1899, which prohibit the discharge of oil into the navigable waters of the United States. The term "oil" means oil of any kind or in any form, including fuel oil, oil sludge, and oil refuse.

(m) On every vessel located at explosives loading facility or anchorage or ammunition loading facility no work shall be undertaken on the main propulsion machinery, auxiliaries or boilers that will render inoperative fire pumps, electric power or propulsion of the vessel without express authority of the Captain of the Port. When the repairs authorized make inoperative the main propulsion unit an auxiliary tug shall stand by.

(n) (1) Every self-propelled vessel having on board military explosives shall at all times maintain means of propulsion. When not under way, such a vessel shall have available on deck, fore and aft, hawsers capable of being used for emergency towing. The eye of such hawser shall be clear of the chock with messenger attached and ready to run and the ship's end shall be stopped off on the bitts to permit reasonable scope of hawser for towing. A heaving line made up and secured to the rail by rope yarn shall be bent to the messenger. Fire axes shall be kept conveniently at hand, fore and aft, to be used on the ship or passed to the dock for cutting mooring lines in case of an emergency.

(2) Nonself-propelled vessels having on board military explosives when moored or anchored shall have at least one tug for each facility or area at which they are moored or anchored.

(o) Every vessel loading or unloading military explosives shall display at its masthead by day a red flag at least 16 square feet in area or at least 10 feet above the upper deck if the vessel has no mast, and at night, while fast to a dock, a red light in the position specified for the flag.

(p) Any device, such as a radio, radar, etc. capable of radiating electromagnetic energy shall be de-energized by opening the main switches thereto, and these switches shall be tagged to warn personnel against reenergizing the circuits whenever the vessel is at an explosives or ammunition handling facility, at an explosive anchorage with a barge or other type of vessel containing explosives alongside, or when a hatch containing explosives is uncovered.

§ 146.29-27 *Fire hose.* (a) During the handling, loading, or unloading of military explosives the vessel shall "run out" or otherwise make ready for quick use a minimum of two lines of hose on the weather deck, one fore and one aft. These hoses shall be of sufficient length so that one or the other can reach all areas of the weather deck. The fire hose valves controlling these lines shall remain "cracked open" (except in freezing weather) so casual observation may indicate that water is available.

(b) Additional fire lines shall be "run out" or otherwise made ready at each hold or compartment working or con-

taining military explosives when the hatch serving the hold is open. These lines shall be of sufficient length to reach all portions of the hold or compartment.

§ 146.29–29 *Smoking.* (a) Smoking is prohibited on or near any vessel handling, loading or unloading military explosives at an explosives or ammunition loading pier. Smoking areas may be designated upon approval by the Captain of the Port provided such areas are located at a safe distance from the vessel. "No Smoking" warning signs shall be posted during operations of handling, loading or unloading such cargo. At least one such "No Smoking" sign shall be located on the pier at a reasonable distance from the vessel when such handling, loading, or unloading is taking place at a pier.

(b) Smoking is prohibited on or near any vessel handling, loading, or unloading explosives at an explosives anchorage, except the Captain of the Port may, with the concurrence of the master or person in charge of the vessel, designate a compartment as a smoking area. This compartment will be fitted with installed electric lighting devices without open flame. "No Smoking" warning signs shall be posted conspicuously in other parts of the vessel during operations of handling, loading, or unloading.

§ 146.29–31 *Liquor or drugs.* No person who, in the judgment of the master, person in charge of the vessel, or the officer in charge of the Coast Guard detail, is considered as being under the influence of intoxicating liquor or of drugs shall be permitted on board a vessel while operations involving the handling, loading, unloading, or transportation of explosives are being carried on, except if the person under the influence of intoxicating liquor or drugs is a bona fide member of the crew of the vessel involved, he may at the discretion of the Officer-in-Charge of the Coast Guard detail board the vessel: *Provided,* That the master or person in charge of the vessel will accept custody and full responsibility for said person: *And provided further,* That this person shall not be permitted to perform any work on the vessel while under the influence of intoxicating liquor or drugs.

§ 146.29–33 *Cargo working gear and equipment.* (a) Before military explosives are loaded or unloaded on or from a vessel the master or other person in charge of the vessel is required to ascertain by examination the adequacy, the condition and working order of all working equipment including slings, crates, baskets, boxes, chutes, mattresses, and tackle.

(b) Any and all equipment, which in the judgment of the master or other person in charge of the vessel is not adequate or in safe working condition shall be rejected by him and he shall prohibit its use and shall take such precautions as he may deem necessary to be certain such rejected equipment is not used for the purpose of loading or unloading explosives. The master or other person in charge of the vessel shall keep watch of all equipment used during the transfer of explosives and if any part of the equipment shows any defect or is damaged in use, work shall be stopped and the damaged or defective equipment repaired or replaced before permitting the loading or unloading to continue.

(c) This inspection of cargo working equipment shall apply to the vessel's equipment and to stevedore's or other contractor's equipment.

(d) The Captain of the Port or his representative may prohibit the use of any cargo working gear or equipment, including stevedore equipment, which he deems unsafe.

§ 146.29–35 *Lights, tools, and portable equipment.* (a) No artificial lights except electric lights, electric lamps, or electric floodlights shall be used while loading or unloading military explosives. Such light fixtures shall not be used unless protected against accidental breakage by metal guards. Portable electric lights shall be fitted with stout guards protecting the bulb. Wires of such lights shall be sound and show no evidence of liability to short circuit. When deemed necessary by the military service concerned with the shipment of the explosives due to the possible presence of explosive dust or vapors in the hold of the ship being worked, all electrical equipment and light fixtures used therein shall be of a type approved for the hazardous location as defined in the National Electric Code. This equipment shall be grounded and continuity of the grounding system assured by the applicable methods prescribed in the National Electric Code.

(b) Portable lights shall be so installed as to prevent any part of the light or its cable from coming in contact with the deck or the cargo. A hanging portable light shall not be suspended from its cord but shall be fitted with a gantline so installed that no strain is carried by the light cable. No portable light shall be taken into a hold or compartment in which the stowage of ammunition or explosives has been completed without prior approval by the Captain of the Port or his representative. A portable light that is permitted in a hold under these circumstances shall be so guarded and protected that neither the light nor the light cord shall be in bearing with any metal part of the vessel or with any of the ammunition or explosives, or the containers thereof.

(c) Flashlights of a non-spark type shall be provided by the vessel owner, agent or its master or other person in charge of the vessel, for personnel required to enter holds in which explosives are stowed.

(d) Members of the crew of the vessel and other persons permitted on board the vessel to aid and assist in loading, unloading or handling military explosives shall not be permitted to carry on their persons firearms, matches, flame producing devices, knives, bale hooks, metallic tools except as provided in paragraph (e) of this section or personal packages of any description, except the prohibition against knives shall not apply to the seaman's knife in possession of a member of the crew of the vessel, provided such crew member is not actually working the explosives or ammunition. Lunch boxes, pails, thermos bottles, other food containers or personal packages of any description shall not be brought on board a vessel unless such items have been examined and passed by the Coast Guard detail. Food containers that are passed on board the vessel shall not be stored in the hold in which explosives are being worked nor shall their contents be eaten in such hold. Persons engaged in handling and stowage of military explosives shall not wear shoes or boots shod or strengthened with iron nail or other spark producing metal unless such footwear is covered with rubber, leather, or other nonsparking material.

(e) The Captain of the Port may authorize the use of pinch bars of metal or wood, in "breaking out" or stowing unfuzed bombs, large caliber separate loading shells, and packages of ammunition shipped in heavy unit weight containers. He may also permit the use of saws and hammers that are actually powered by the hand or hand and arm, in the hold of a vessel when necessary in fitting dunnage or constructing a partition or a division bulkhead or installing protection required for the stowage of military explosives. The Captain of the Port may authorize spark proof electrically powered or pneumatic saws or hammers, but they shall not be used in any compartment containing military explosives.

(f) All electric wiring in holds in which explosives are to be stowed shall be inspected prior to the loading of explosives into the hold. The electrical circuits which terminate in holds in which explosives are to be stowed shall be deenergized by removing their fuses or inactivating their circuit breakers at the main panel prior to loading and these circuits shall remain deenergized while explosives are within the hold. The main panel shall be tagged to warn personnel against reenergizing these circuits.

§ 146.29–37 *Handling drafts of lumber.* All lumber in excess of 3 feet in length shall be handled into or out of the holds of vessels loading, unloading or containing military explosives or ammunition by use of a double sling. Small pieces of lumber used in chocking and dunnaging shall be handled in trays with sideboards. Cargo nets may also be used provided they are lined with canvas or similar fabric. Dunnage shall not be lowered directly onto stowages of ammunition or explosives. Landing mats or timbers shall be laid to receive such drafts.

§ 146.29–39 *Handling and slinging of explosives.* (a) All military explosives or chemical warfare agents in bulk shall be handled carefully. Packages and other containers shall not be dropped, dragged, tumbled, walked, slid over each other or over the deck or otherwise subjected to shock except that heavy containers of military explosives equipped with pulling bar assemblies and skids may be positioned in the holds of vessels by using the pulling bar assemblies to maneuver the containers for short distances at slow speed. Packages and

other containers shall not be rolled unless roling is specificaly premitted by the provisions governing handling as set forth in § 146.29–100.

(b) In transferring military explosives between pier facilities and vessels or from vessel to vessel, or within the hold of a vessel the items may be handled by hand, power operated mechanical hoist or power operated conveyor approved by the Captain of the Port, power operated cargo lift truck, hand truck or nonpowered (gravity) roller conveyor (hand controlled); or unless specifically prohibited by the regulations in this subpart, a specification chute and mattress may be used. (Refer to §§ 146.09–11 and 146.09–12 for specifications of chute and mattress.)

(c) Military explosives shall be hoisted and lowered carefully onto a mattress or other shock absorbing material. The Captain of the Port may authorize omission of a mattress when its use is unnecessary due to use of pallets or other special gear except when Classes III, VI, VIII and IX–C are being handled, loaded or unloaded.

(d) The Captain of the Port may permit the use of cargo-handling vehicles or equipment powered by internal combustion engines on docks, wharves or piers for the handling of military explosives under such conditions as he may prescribe. Such type vehicles or equipment shall not be used within a hatch of a vessel having military explosives in any hold within said hatch. Electric or battery powered vehicles or equipment of explosion-proof or spark-proof type may be used to handle military explosives on docks, wharves, piers or in the holds of vessels under such conditions as the Captain of the Port may prescribe. All power-operated cargo-handling vehicles or equipment shall at all times be maintained in safe mechanical, electrical and operating condition. The use of cargo-handling vehicles or equipment may be suspended or prohibited by the Captain of the Port or his representative when he considers such use inimical to safety.

(e) When handling, loading or unloading by mechanical means, all military explosives shall be handled in the type equipment specified for the various classes of explosives in § 146.29–100. Military explosives shall be arranged on trays so that no portion of the military explosives or containers overhangs the tray. For trays provided with sideboards, military explosives or containers shall not extend above the sideboards to a height exceeding one-third of the vertical dimension of the item as stowed on the tray. Rope net slings with pieplates, pallet, skipboard or similar base shall be so loaded that when lifted a minimum displacement of items shall occur and the cargo net shall completely encompass the entire load except on its topside.

(f) The mesh of a cargo net shall be of such size as will prevent any item or container of military explosives in the draft from passing through the mesh under any possible circumstances.

(g) Drafts shall not be raised or stopped in lowering by sudden application of power or brake. Drafts shall not be unloaded by tripping or freeing one side of the net, tray, or pallet and tumbling the ammunition or explosives out of the gear. All drafts, beams, shackles, bridles, slings, hooks, etc. shall be hand freed before the winch takes control. Slings shall not be disengaged by hand unhooking and then dragged from under draft by means of winch. Handles or beckets on ammunition packages shall not be used for slinging purposes.

(h) Blasting caps, detonators, primer-detonators, fulminate of mercury and initiating or priming explosives as defined in the regulations in this part shall be considered as constituting a distinct class of dangerous explosives, and because of the hazard involved they shall be handled with extreme care.

(j) "Cant" or barrel hooks shall not be used for raising or lowering a barrel, drum, depth bomb, depth charge or other container of military explosives. Metal bale hooks shall not be used in handling packages of explosives.

(k) Combination woven rope and wire slings are not permitted for use in handling explosives. A sling that is formed by use of an open hook shall not be used in hoisting or lowering a draft of military explosives.

(l) Wire rope or wire rope assemblies including splices or fittings thereof, used in handling military explosives shall be kept bare to permit ready inspection of its safe working condition. Mechanical type endings may be used in lieu of hand splices provided such endings have a minimum breaking strength equal to the catalog strength of wire rope from which it is made.

(m) Bombs shall not be handled by attaching ship's cargo gear to the lifting lug or suspension lugs.

§ 146.29–41 *Weight per draft.* To eliminate excessive drift, slings will be as short as practicable when handling military ammunition or explosives. The maximum permitted weight per draft of all classes of military explosives shall be as follows for a 5 ton boom. The weights per draft may be increased proportionately for booms of greater capacity. In all instances the allowance shall remain as 10 percent. For example, in paragraph (d) (2) of this section, the maximum weight of drafts consisting of one or more palletized units of Class V or VII military explosives shall not exceed 4,400 pounds when using a five ton boom; however, if a ten ton boom is used the weight of the draft may be increased to 8,800 pounds (8,000 pounds plus 10 percent of same).

(a) *Class I.* (1) When handled by pallet, skipboard, or tray fitted with cargo net or sideboards shall not exceed 3,000 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 4,000 pounds plus 10 percent.

(b) *Classes IIA, IIB, IIC, IID, IIE, IIF, IIG, IIH, IIJ, IVA, IVB, IXA, IXB.* (1) When handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 4,000 pounds plus 10 percent.

(c) *Classes III, VI.* (1) When handled by tray fitted with sideboards shall not exceed 2,400 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 4,000 pounds plus 10 percent.

(d) *Classes V, VII.* (1) When handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 4,000 pounds plus 10 percent.

(3) Single shells weighing in excess of 2,200 pounds must be loaded or unloaded one at a time.

(e) *Class VIII.* (1) When handled by tray fitted with sideboards shall not exceed 1,000 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 2,400 pounds plus 10 percent.

(3) The maximum permitted weight for lift of a portable magazine containing Class VIII ammunition shall not exceed 2,400 pounds plus 10 percent.

(f) *Class IX–C.* (1) When handled by tray fitted with sideboards shall not exceed 1,000 pounds plus 10 percent.

(2) The maximum permitted weight for purpose of lift of a portable magazine containing IX–C explosives shall not exceed 2,400 pounds plus 10 percent.

(g) *Classes X–A, X–B, X–C, X–D, X–E.* (1) When handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 pounds plus 10 percent.

(2) When handling bombs, more than one to a draft, by sling method or in palletized units, the draft shall not exceed 4,000 pounds plus 10 percent.

(3) Table of limiting loads applicable when handling bombs by sling method:

| Weight of individual bomb or cluster: | *Maximum limits in units per draft* |
|---|---|
| 1 pound to 250 pounds plus 10 percent per unit | 8 |
| 276 to 500 pounds plus 10 percent per unit | 6 |
| 551 to 1,000 pounds plus 10 percent per unit | 4 |
| 1,101 to 2,000 pounds plus 10 percent per unit | 2 |
| Over 2,200 pounds | 1 |

(4) Single items or assembled units (other than palletized), designed to be handled as a unit, may be loaded regardless of weight provided the cargo handling gear is of a design capable of handling a working load at least 50 percent additional to the actual weight of the item or unit comprising the draft, and provided further the integrity of the cargo handling gear is unimpaired.

(h) Classes *XI–A, XI–B, XI–C, XI–D.* (1) When handled by trays, skipboards, pallets or pieplates fitted with cargo nets or sideboards shall not exceed 2,400 pounds plus 10 percent.

(2) Drafts consisting of one or more palletized units shall not exceed 4,000 pounds plus 10 percent.

(3) Single bombs or other unit containers weighing in excess of 2,200 pounds must be loaded or unloaded one at a time.

(j) A tray with a top and so constructed that it may be considered equivalent to a palletized unit may, sub-

ject to the approval of the Captain of the Port, be permitted a maximum weight per draft of 4,000 pounds plus 10 percent. This top may be constructed of other material than the tray, provided it serves to make the tray an integral unit.

§ 146.29-43 *Requirement for the opening of hatches*—(a) *Vessels at explosives loading piers or at ammunition loading piers.* (1) A weather deck hatch through which ammunition or explosives are being worked shall have sufficient hatch covers and hatch beams removed across the entire width of the hatch so that the resulting opening, measured parallel to the side of the vessel, is at least equal to twice the longest axis of the largest draft being loaded.

(2) Strongbacks or hatch beams left in place shall be firmly secured by hatch batten or other approved means.

(b) *Vessels at explosives anchorages.* A weather deck hatch through which ammunition or explosives are being worked shall have all hatch covers and all hatch beams removed unless otherwise authorized by the Captain of the Port.

(c) *Vessels at explosives anchorages having a magazine constructed in the square of a weather deck hatch.* Sufficient hatch covers and hatch beams shall be removed from the weather deck hatch to expose the entire magazine.

(d) *General requirements.* (1) During the working of ammunition and explosives to or from the deep holds, the tween-deck hatch openings shall at all times be equal to, if not greater than, the weather deck hatch openings.

(2) The use of open hooks in removing or replacing hatch beams or hatch strongbacks is prohibited. Closed hooks, shackles or T bars shall be used in this operation.

§ 146.29-45 *Loading or unloading military explosives and other cargo.* (a) Military explosives shall not be loaded or unloaded in a hatch at the same time that other cargo is being worked in any of the holds serviced through said hatch.

(b) Military explosives shall not be loaded or unloaded from the same hatch from both sides of the ship simultaneously, unless the hatch is fitted with cargo handling gear located at both the forward and after ends of the hatch. A vessel so equipped may also use both sets of cargo handling gear simultaneously from the same side of the vessel.

(c) When military explosives are stowed in a hold below one in which any cargo is being worked the 'tween-deck hatch dividing the two holds will have all of its covers securely in place.

(d) Military explosives may be loaded in a hold before or after other cargo, provided that all precautions are taken to assure full protection to the explosives against the hazard of articles being dropped from the cargo sling. When possible hatches should be partially covered to assure such protection.

(e) Cargo drafts being loaded or unloaded shall not be handled over explosives or other dangerous articles that are stowed "On deck".

(f) Any deck loads over which military explosives must be passed shall be limited in height to that of the hatch coaming, bulwark, or three feet, whichever is greater.

§ 146.29-47 *Packing and marking.* Military explosives shall not be offered to vessels or accepted by vessels subject to the regulations in this part unless they are in proper condition for transportation and are packed, marked, labeled, described, certified and otherwise acceptable in accordance with the applicable provisions of the regulations in this part.

§ 146.29-49 *Stowage on board barges.* (a) Barges subject to the regulations in this part, engaged in the transfer of explosives between receiving points and delivery points within the harbors, bays, sounds, lakes, and rivers, including the explosives anchorages on the navigable waters, shall conform to the applicable provisions of §§ 146.10-1 to 146.10-50, inclusive. Ammunition or explosives in bulk, in combustible outside packages, stowed "On deck in open" shall after loading and during transportation be covered by fire resistant and/or flame proof tarpaulins securely lashed in place.

(b) Notwithstanding the requirements of this subpart relative to the stowage of detonators, blasting caps and fuzes, Class VIII, such articles may be stowed "On deck" on Class AA and Class AB barges with other ammunition or explosives in bulk stowed thereon, provided a sandbag barrier of at least 2 feet in thickness intervenes between the ammunition or explosives in bulk and the detonators, blasting caps or fuzes. When both are stowed "On deck" the height of this barrier shall be at least equal to the height of the stowage of the detonators, blasting caps or fuzes, or the ammunition or explosives in bulk, whichever is highest. The barrier shall either completely surround the detonators, blasting caps or fuzes or extend across the width of the barge. With this type of barrier no additional separation is required. For Class AC barges, the stowage of detonators, blasting caps or fuzes, Class VIII, shall, when no permanent steel bulkhead intervenes, be separated from the stowage of ammunition or explosives in bulk by a distance of 40 feet; with a permanent steel bulkhead intervening, detonators, blasting caps or fuzes shall be separated from the stowage of explosives in bulk by a distance of 25 feet and from the stowage of ammunition by a distance of 10 feet. If, under deck, a 2-foot sandbag barrier is utilized to intervene between the stowage of ammunition or explosives in bulk, it shall be considered as though a permanent steel bulkhead or deck intervenes. Notwithstanding the provisions of § 146.10-50, Class CA and Class CB barges may transport ammunition on deck.

§ 146.29-51 *Stowage on board vessels.* (a) All articles of cargo classified as military explosives by the regulations in this subpart shall be stowed on board a vessel in conformity with the provisions of the regulations in this subpart.

(b) Mixed stowage of ammunition or explosives in bulk with other ammunition or explosives, or other dangerous articles or substances, or combustible liquids or hazardous articles shall be in conformity with the provisions of the explosives and hazardous munitions admixture charts, § 146.29-99, the classification, handling and stowage chart § 146.29-100 and other applicable specific provisions of this subpart.

(c) Specifications governing construction and location of magazines and lockers and the preparation of cargo compartments to be used in the stowage of military ammunition are detailed in §§ 146.29-71 to 146.29-95, inclusive.

§ 146.29-53 *Stowage of military explosives in holds containing coal.* Unless expressly authorized by the Commandant of the Coast Guard military explosives shall not be stowed in a hold containing coal as cargo nor in any hold above, below or adjacent to one containing coal.

§ 146.29-55 *Stowage of military explosives in holds containing household or personal effects and/or mail as cargo.* Unless expressly authorized by the Commandant of the Coast Guard, military explosives shall not be stowed in a hold containing household or personal effects and/or mail as cargo, nor in the hold above or below the hold containing any of these items. However, this requirement shall not apply to vessels having on board military explosives of the Class I category only.

§ 146.29-57 *"On deck" stowage.* (a) Articles classified as military explosives, the stowage of which is permitted "On deck" by the regulations in this subpart shall be properly secured. Such security may be obtained by using existing vessel's structures such as bulwarks, hatch coamings, shelter deck and poop bulkheads, as part boundaries and effectively closing in the cargo by fitting angle bar closing means, secured by bolting to clips or other parts of the ship's structure. Lashing of deck stowage permitted, provided eye pads are fitted to carry such lashings. Guard rails shall not be used to secure such lashings.

(b) Bulky articles may be secured by lashing with individual wire rope lashing or other equally efficient means.

(c) Shoring of such bulky articles of cargo shall be in addition to the foregoing means of securing.

(d) Military explosives stowed "On deck" shall not be stowed within a distance of 20 feet of an incinerator, the topside terminus of an ash hoist or a coal or oil fire galley or bake shop. For vessels fitted with electrically operated galleys and bake shops, the military explosives stowed on deck may be stowed not closer than 10 feet of such galleys and bake shop provided no incinerator or topside terminus ash hoist is within a distance of 20 feet of such stowage.

§ 146.29-59 *Stowage adjacent to other dangerous articles.* As noted in § 146.29-11, missile and rocket fuels or oxidizers listed in Classes XI-C and XI-D of § 146.29-100 are excluded from the provisions of this section, and compatibility will be in accordance with the chart in § 146.29-99.

(a) *Flammable liquids.* (1) Military explosives shall not be stowed in the same hold, nor in any hold below, any hold above or a hold adjacent to one in which flammable liquids are stowed. Military vehicles including ducks, buffaloes, alligators and similar amphibious types of craft, referred to in this subpart as "vehicles" or "military vehicles", using a flammable liquid as fuel may be stowed in holds adjacent to a hold in which military explosives are stowed provided the fuel is confined to the vehicle's tank and is not in excess of approximately 75 percent of the capacity of the fuel tank.

(2) Military vehicles, landing craft and small boats using flammable liquid as fuel and having the fuel confined to the vehicle's or boat's tank and not in excess of approximately 75 percent of the capacity of said tank may be stowed "On deck" over a hold in which military explosives are stowed: *Provided*, That the weather deck is tight and the cargo hatch is fitted with a tight raised coaming and that such stowage is not made over the square of the hatch, except that amphibious type vehicles, landing craft or boats having fuel tanks installed within a tight hull may be stowed over the square of a hatch.

(3) Flammable liquids as cargo shall not be stowed "On deck" immediately above a hold in which military explosives are stowed. The applicable provisions of §§ 146.21–1 to 146.21–100, inclusive, shall be observed in the stowage of flammable liquids "On deck".

(b) *Flammable solids or oxidizing materials.* (1) Military explosives shall not be stowed in the same hold nor in any hold above or below or a hold adjacent to one in which flammable solids or oxidizing materials are stowed except as specifically authorized by the provisions of § 146.29–100.

(2) Flammable solids or oxidizing materials may be stowed "On deck" over a hold in which military explosives are stowed: *Provided*, That the weather deck is tight and the cargo hatch is fitted with a tight raised coaming and such stowage is accomplished by means of a crib and platform so constructed as to provide a free space of at least 6 inches in height between the deck and the floor of the crib in such a manner as to allow flushing of any leakage that may occur: *And provided further*, That such stowage is not made over the square of the hatch.

(c) *Corrosive liquids.* (1) Military explosives shall not be stowed in the same hold nor in the hold below one in which corrosive liquids are stowed except as specifically authorized by the provisions of § 146.29–100. Corrosive liquids may be stowed "On deck" over a hold in which military explosives are stowed: *Provided*, That the weather deck is tight and the cargo hatch is fitted with a tight raised coaming and such stowage is accomplished by means of a crib and a platform so constructed as to provide a free space of at least 6 inches in height between the deck and the floor of the crib in such a manner as to allow flushing of any leakage that may occur: *And further provided*, That such stowage is not made over the square of the hatch.

(2) The substances listed below shall not be transported on board a vessel which is carrying in excess of 100 tons of ammunition or explosives:

Acid sludge.
Bromine.
Chloracetyl chloride.
Dimethyl sulfate.
Hydrofluoric acid, anhydrous.
Nitrating (mixed) acid.
Nitric acid.
Phosphorus oxychloride.
Phosphorus tribromide.
Phosphorus trichloride.
Spent acid (sulfuric or mixed).
Sulfur chloride.

(d) *Military vehicles with electrolyte.* Notwithstanding the provisions of §§ 146.23–1 to 146.23–100, electrolyte of not over 47 percent strength (39° Baumé) may be accepted for transportation and be stowed on board vessels carrying military explosives under the following conditions of packing:

(1) In glass or earthenware containers, not exceeding 160 ounces capacity (one imperial gallon) in fiberboard cartons of a size to permit cushioning with an incombustible, absorbent material of a sufficient amount to absorb the contents of the container in event of breakage. The outside container shall consist of a wooden box (ICC 15A, 16B or Army Specification) in which 1, 2, 3, or 4 fiberboard cartons may be packed. The outside containers shall carry the white (acid) label. No military ammunition shall be included within this package.

(2) Electrolyte packed in accordance with provisions set forth in subparagraph (1) of this paragraph may be stowed:

(i) "On deck in open" including deck areas over holds containing military explosives.

(ii) "Tween-deck" or "Under deck" in holds adjacent to or in any hold below a hold containing military explosives.

(3) Electrolyte, when packed in accordance with the provisions of subparagraph (1) of this paragraph, may be accepted for transportation when securely fastened within or on a military vehicle or other military equipment whether such vehicle or equipment is shipped crated, boxed, or without crating or boxing. Such military vehicles or military equipment, when shipped crated or boxed, may be accepted for transportation when the container of electrolyte is securely fastened on the inside of the shipping crate or box containing the vehicle or military equipment. When so shipped, the overall crate or box shall carry the white (acid) label and shall be marked "This side up" and "Inside packages comply with prescribed specifications."

(4) Electrolyte packed in accordance with the provisions of subparagraph (1) of this paragraph when offered for transportation under the conditions set forth in subparagraph (3) of this paragraph, may be stowed as follows:

(i) "On deck in open", including deck areas over holds containing military explosives;

(ii) "Tween-deck" or "Under deck" in holds adjacent, any hold below or any hold above holds containing military explosives; or,

(iii) In the same hold containing Class I, IV–B, V, VII, X–A, X–B, X–C, or X–D, provided the stowage of military vehicles and the stowage of ammunition are separated by a division bulkhead or a 2-inch dunnage floor.

(5) Military vehicles (crated or uncrated) containing an electrolyte storage battery shall not be stowed in the same hold over military explosives stowed therein. Such vehicles may be stowed in the same hold under or alongside of military explosives stowed therein: *Provided*, That all the applicable provisions of this section are observed: *And provided further*, That the vehicles are processed, the fuel tank drained dry, the battery terminal leads disconnected, taped and protected against short circuit.

(6) Military vehicles or military equipment as used in this section includes naval vehicles or naval equipment.

(e) *Flammable compressed gases.* (1) Military explosives shall not be stowed in the same hold nor in any hold below, any hold above or a hold adjacent to one in which flammable compressed gases are stowed.

(2) Flammable compressed gases shall not be stowed "On deck" over a hold in which any Class II–A, II–B, II–C, II–D, II–E, II–G, V, VI, VII, VIII, IX–A, IX–B, IX–C, X–A, X–B, X–C, X–D, XI–A, XI–B, or XI–C is stowed.

(3) Flammable compressed gases may be stowed "On deck" over a hold in which Class I, II–F, II–J, III, IV–A, or IV–B is stowed: *Provided*, That, the weather deck is tight and the cargo hatch is fitted with a tight raised coaming, and such stowage is accomplished by means of skids at least 6 inches in height off the deck or a crib and platform so constructed as to provide a free space of at least 6 inches in height between the deck and the floor of the crib. Other applicable provisions of §§ 146.24–1 to 146.24–100, inclusive, shall be observed. Stowage may be over the square of the hatch.

(f) *Non-flammable compressed gases.* Ammunition of the following Classes I, II–G, IV–A, IV–B, V, and VII may be stowed in the same hold or compartment with non-flammable compressed gases provided the two stowages are separated by a type "A" dunnage floor or a division bulkhead. This mixed stowage is not permitted for the following non-flammable gases: Boron trifluoride, chlorine, oxygen and sulphur dioxide.

(g) *Poisons*—(1) *Class "A".* Classes I and II–F ammunition may be stowed in the same hold or compartment with Class "A" poisons provided the two stowages are separated by a type "A" dunnage floor or a division bulkhead.

(2) *Class "B".* Ammunition of the following classes, I, II–F, IV–A, IV–B, V, VII, XI–A, and XI–B may be stowed in the same hold or compartment with class "B" poisons: *Provided*, That the two stowages are separated by a type "A" dunnage floor or a division bulkhead.

(3) *Class "C" (tear gas).* Ammunition of the following classes I, II–F, II–G, IV–A, IV–B, V, VII, XI–A, and XI–B may be stowed in the same hold or compartment with Class "C" poisons: *Provided*, That the two stowages are sep-

arated by a type "A" dunnage floor or a division bulkhead. Class II–B may also be stowed in the same hold with Class "C" poisons: *Provided*, That the two stowages are separated by a type "A" dunnage floor or a division bulkhead: *And provided further*, That the Class II–B ammunition is given top stowage.

(4) *Class "D" (radioactive material).* Military explosives shall not be stowed in the same hold in which Class "D" poisons are stowed.

(h) *Hazardous articles.* Military explosives shall not be stowed in the same hold or in the hold below, the hold above or a hold adjacent to one in which hazardous articles are stowed.

(j) *Combustible liquids.* (1) Military explosives shall not be stowed in the same hold nor in the hold below one in which combustible liquids are stowed.

(2) Combustible liquids may be stowed "On deck" over a hold in which military explosives are stowed: *Provided*, That the weather deck is tight and the cargo hatch is fitted with a tight raised coaming and such stowage is accomplished by means of a crib and a platform so constructed as to provide a free space of at least 6 inches in height between the deck and the floor of the crib in such a manner as to allow flushing of any leakage that may occur. *And provided further*, That such stowage is not made over the square of a hatch.

(k) *"On deck" stowage.* When containers of flammable liquids, flammable solids or oxidizing materials, corrosive liquids, compressed gases, poisons, combustible liquids or hazardous articles are stowed "On deck", such containers shall not be stowed within 12 inches of any steam pipe fitted on deck.

§ 146.29–61 *Stowage with nondangerous cargo in the same hold.* (a) Military explosives that are stowed in the same hold with nondangerous cargo shall be protected from damage likely to be caused by heavy nondangerous cargo. Shafting, steel bar, steel shapes, pipe, heavy machinery, military vehicles (uncrated), and similar types of cargo shall, when stowed in the same hold with military explosives be so isolated or dunnaged or secured as to prevent damage to military explosives or magazines containing said substances, or temporary bulkheads protecting explosive stowages, under any conditions likely to be encountered during the voyage.

(b) When nondangerous cargo is to be stowed adjacent to the exterior of a magazine, wooden cargo battens of not less than commercial 2" x 4" size spaced not more than 12 inches, center to center, shall be fitted horizontally to the uprights forming the frame of the magazine.

§ 146.29–63 *Stowage and dunnaging of ammunition and containers of explosives in bulk.* (a) Military explosives shall be so stowed and dunnaged as to prevent damage to the cargo or the vessel from shifting cargo caused by forces incident to the voyage of the vessel. Nothing within this paragraph shall be construed as requiring the entire interior of the cargo compartment to be covered with dunnage.

(b) Containers of military explosives marked, "This side up" or otherwise marked directing their stowage shall be so stowed.

(c) Kegs of black powder shall be stowed in an upright position, the bungs or other filling openings "up". Each tier shall be floored off.

(d) Metal containers of smokeless powder in bulk or metal tanks or other containers of propellant charges having closure means which protrude beyond the chime or the surface of the container shall be so dunnaged as to prevent damage occurring to such closures.

(e) The uppermost tier of military explosives shall be so secured to the mutual satisfaction of the Captain of the Port and the Master of the vessel by tomming, bracing, strapping, top stowing with permissible cargo of sufficient unit weight and quantity or other effective means that no displacement can occur either upwardly or laterally.

(f) Military explosives shall be so stowed that they or the containers are not liable to be pierced by the dunnaging or crushed by superimposed weight.

(g) Containers of military explosives shall not be "cant" stowed. They shall be stowed in full bearing on dunnage or both end and center bearing on dunnage. Broken stowage may at the turn of the bilge, be dunnaged out with cordwood or otherwise so cribbed as to provide maximum bearing attainable for the container to be stowed in the tier above. Broken stowage in other locations in the hold may be compensated for by cribbing out or by the insertion of sufficient dunnage to provide proper bearing for packages in the tier above.

(h) Fixed or semi-fixed ammunition in fiber containers, crated or uncrated, may be stowed on its base or on its side. Dunnaging shall be accomplished in such manner as to bear only upon the metal part of the container. No dunnage or weight shall bear directly upon the fiber portion of the container.

(j) Separate-loading shells, boxed, crated, unboxed, or uncrated may be stowed on their bases or on their sides except as otherwise provided for Army WP filled ammunition in the stowage requirements for Class II–D ammunition, § 146.29–100.

(k) When tween-deck holds of cargo vessels are utilized for the stowage of military explosives, the maximum permissible deck load for such tween decks shall not be in excess of 45 pounds per square foot of tween-deck space for each foot of tween-deck height, except where the deck and hatch structure of ships have been specially designed or reinforced for the carriage of heavy loads the Captain of the Port may permit loading in accordance with these schedules of increased intensity of loading when they are furnished by the master or operator.

§ 146.29–65 *Damaged or leaking containers of explosives.* (a) Any container of explosives or chemical warfare agents showing evidence of failure, leaking of a liquid ingredient or inability to retain its contents shall not be accepted for transportation, storage, or stowage on board any vessel.

(b) Any container of an explosive when offered for transportation, storage, or stowage, showing excessive dampness or which is moldy or shows outward signs of any oil stain or other indications that absorption of the liquid part of the explosive is not perfect, or that the amount of the liquid part of the explosive is greater than the absorbent can carry, shall not be accepted for transportation. The shipper must substantiate any claim that a stain is due to accidental contact with grease, oil, or similar substances. In case of doubt the container shall be refused.

§ 146.29–67 *Defective ammunition.* Ammunition found to be defective while being unloaded from a barge, freight car, or other vehicle, shall not be placed on board a vessel. If found to be defective while on board the vessel, it shall, if at all possible, be removed from the vessel to an isolated location as quickly as possible.

§ 146.29–69 *Recoopering damaged packages.* Defective packages shall not be recoopered in the hold of a vessel. Such packages shall not be recoopered elsewhere on board the vessel except upon conditions authorized by the Captain of the Port. Replacing bomb shipping bands, loose covers, nose plugs or strapping containers is not classed as recoöpering.

§ 146.29–71 *Constructing magazines.* (a) All work in connection with the construction of a magazine, or other conditioning of holds, decks, or hatches shall be completed before the actual loading of military explosives is undertaken except as provided in §§ 146.29–35 (e) and 146.29–81 (b). Magazine construction or other conditioning of a hold in which military explosives are not actually being loaded or which do not contain any military explosives is permitted.

(b) Sizes of material used for the construction of a magazine or other conditioning of holds, decks, or hatches, as set forth in the regulations in this subpart, are minimum. Increased sizes may be used, if desired. Nails shall not protrude beyond the surface of the lumber or other material authorized.

§ 146.29–73 *Preparation of magazines, decks, hatches and holds for handling military explosives.* (a) All magazines and holds shall be cleared of all rubbish and discarded dunnage and be swept, hosed down or cleaned by such other efficient method that will insure the compartment to be broom clean and free of any residue from cargo before commencing to load any military explosives. Bilges shall be examined and any residue of previous cargo removed therefrom.

(b) All decks, gangways, and hatches over or through which military explosives must be passed or handled in loading or unloading shall be freed of all loose material and shall be swept broom clean both before and after loading or unloading.

(c) The hatches or cargo ports opening into a compartment in which military explosives are stowed shall be kept closed at all times except during the operation of loading or unloading of the

compartments or during periods of short stoppages such as lunch breaks or while shifting of barges or railway vehicles. During the period of such stoppages the hold shall be protected as prescribed by the Captain of the Port. When a hatch is closed wooden hatch covers shall be covered with tarpaulins.

(d) No debris of any description which creates a fire hazard or a hazardous condition for persons engaged in the explosives handling operation shall be permitted to stand on the weather deck of a vessel while military explosives are being worked.

(e) (1) Hatch beams and hatch covers shall, where possible, be stowed on the opposite side of the hatch from that over which the military explosives are being worked. If this is impossible, they may be stowed on the working side of the hatch.

(2) Hatch beams shall be stowed or secured in a manner that will prevent them from rolling, rocking, turning or sliding.

(3) Hatch covers shall be so stowed as to form as level a platform as possible.

(f) During the time a hatch is open and military explosives are being worked or stowed, the vessel's officer on duty supervising the handling of explosives shall warn the masters of other vessels coming alongside and the operator of any dock equipment (capable of producing sparks) to stay clear of the area adjacent to open hatches as far as practicable.

§ 146.29–75 *Location of magazines and ammunition stowage.* (a) A cool location being an important factor, magazines shall be built and military explosives stowed in an authorized location in accordance with the following factors in the order listed. The Captain of the Port may authorize in his discretion a modification of the below established location priorities when circumstances so justify:

(1) A tween-deck hold, preferably a lower tween-deck.

(2) A lower hold.

(3) In the square of a hatch.

(4) A shelter deck in a location as far removed from uptakes or engine casing as possible.

(5) A forecastle, poop or permanent deck house provided the space is ventilated and does not contain any "In use" crew accommodations, nor vessel stores, and can be closed off from traffic while at sea.

(6) "On deck" stowage.

(7) Insulated spaces normally comprising refrigerator spaces may be used for the stowage of all classes of military explosives, except chemical ammunition: *Provided*, That all regulations relative to stowage of explosives with other dangerous articles of cargo are observed and the spaces may be ventilated sufficiently to provide a temperature consistent with the temperature of other holds of the vessel. When such spaces are fully ceiled, the entire compartment will be considered as a magazine, however, any pipes within the compartment shall be protected by horizontal cargo battens of a size not less than commercial 2" x 4", spaced not more than 12 inches apart, center to center and secured to 4" x 6" uprights spaced not more than 36 inches apart. Refrigerator spaces, the floors of which are lined with lead, shall not be used as a stowage for picric acid in bulk or ammonium picrate.

(b) When it is necessary to construct a magazine or to stow ammunition adjacent to the engine room, boiler room or coal bunker bulkheads, or the engine or boiler room uptakes or casings, the following provisions shall be complied with:

(1) A tight wooden temporary bulkhead shall be constructed at least one foot off the permanent bulkheads, uptakes or casings with the smooth side facing the stowage of the explosives or ammunition.

(2) When the permanent bulkhead is smooth on the cargo side, construction shall be of commercial 2-inch boarding secured to uprights of 4" x 6" size spaced not more than 30 inches apart in the tween or shelter deck, or 6" x 6" size spaced not more than 24 inches apart in the lower hold. Uprights shall not be stepped directly onto a metal deck or overhead. A 2" x 6" bearer to carry the upright shall be laid on the metal deck, and a 2" x 6" header shall be fitted against the underside of the overhead deck to receive the top of uprights. Top of uprights fitted against overhead deck beams may be wedged direct to the beam with 2" x 4" spacers fitted between. Suitable horizontal stringers shall be fitted between temporary and permanent bulkhead at the top and bottom, as well as intermediate stringers spaced a maximum of 5 feet. Uprights shall be securely fastened to horizontal stringers or horizontally braced at the top, bottom and center.

(3) When the permanent bulkhead stiffeners are on the cargo side, suitable uprights of not less than 2" x 4" may be installed against the permanent vertical stiffeners to give the required 12 inches off the bulkhead. If the permanent stiffeners are over 30 inches apart, center to center, 2½-inch boarding shall be used. Uprights shall be stepped and braced as required by the provisions of subparagraph (2) of this paragraph. Bulkhead stiffeners that do not extend the full depth of the cargo space shall not be used for this purpose.

(4) Other methods of construction using steel or wooden uprights, bolted to plates or lugs welded to deck beams, decks, or tank tops may be used provided the strength is equivalent to that obtained by the foregoing methods of construction.

(c) Stowage provided for military explosives shall be dry and except for deep tanks well ventilated.

(d) Ammunition as cargo shall not be stowed within a distance of 10 feet of a vessel's radio shack, receiving or transmitting apparatus, radio antenna or antenna lead-in. The same restriction applies to radar equipment.

§ 146.29–77 *Allocation of stowage.* Military explosives that are tendered to a vessel for transportation as cargo shall be stowed on board the vessel utilizing the type of stowage authorized for the particular ammunition or explosives in bulk by the provisions of § 146.29–100.

§ 146.29–79 *Types of stowage.* The types of stowage prescribed for military explosives are described as follows:

(a) Magazine stowage A.

(b) Ammunition stowage.

(c) Chemical ammunition stowage.

(d) Special stowage.

(e) Portable magazine stowage.

(f) Pyrotechnic stowage.

(g) Stowage of blasting caps, detonators, primer detonators, etc.

§ 146.29–81 *Magazine Stowage A.* The following shall be observed in the construction of a magazine required for "Magazine A" type of stowage:

(a) Magazines may be constructed of steel or wood.

(b) Magazines constructed of steel shall have the whole of the interior thoroughly protected by wood dunnage of a minimum thickness of ¾ inch. This lining may be installed during the progress of the stowage. Metal stanchions within the magazine shall be boxed with wood of a thickness of not less than ¾ inch. Bulkhead stiffeners or other structural members extending into the stowage spaces shall not be protected by dunnaging but shall be completely boarded over. When bare steel decks or tank tops are utilized to form the floor of a magazine, a wooden floor consisting of at least two layers of commercial 1-inch thick dunnaging shall be laid, the top course being laid crosswise to the lower course. When steel decks or tank tops are originally fitted with a wood flooring or are ceiled, it shall be necessary to fit one course of dunnage. All flooring formed by these methods shall be laid with commercial 1-inch lumber of widths not less than 4 inches, fitted as close as possible, edge to edge and butt to butt.

(c) Magazines constructed of wood shall have the bulkheads forming the sides and ends constructed of commercial 1-inch lumber, of ¾-inch tongue and groove sheathing, or of ¾-inch plywood, secured to uprights of at least a 3" x 4" size, spaced not more than 16 inches apart and secured at top, bottom and center with horizontal bracing. Uprights shall not be stepped directly onto a metal deck. A 2" x 4" bearer to carry the uprights shall be laid upon the metal deck. A 2" x 4" header shall be fitted against the underside of an overhead deck to receive the top of uprights. Top of uprights fitted against channel beams may be wedged directly to the beam with 2" x 4" spacers fitted between. Care shall be taken in securing upright framing that no nails penetrate to the interior of the magazine. When a magazine is constructed as a permanent compartment in the vessel, increased size and finish of lumber and other methods of fastening may be used provided such fastenings are recessed below the surface of the boarding to avoid projections within the interior of the magazine. All boardings shall be fitted and finished so as to form a smooth surface within the interior of the magazine. Construction shall be such as to separate all containers of explosives from contact with metal surfaces of the structure of the vessel. When a metal stanchion, post or other obstruction is located within the interior

area of the magazine, such obstruction must be completely covered with wood of a thickness of at least ¾ inch secured in place with nails or screws. When screws are used for fastening, the screw-heads shall be countersunk below the surface of the wood. The floor of the magazine shall conform to the provisions of paragraph (b) of this section. The door of the magazine shall be of substantial construction, fitted reasonably tight into its jamb. The door may be secured in place by the use of extension battens and wedges.

(d) A magazine constructed in accordance with the provisions of paragraphs (b) and (c) of this section, in which it is proposed to stow containers of explosives within 12 inches of the overdeck beams, or hatch coaming, shall have such deck beams and coaming sheathed with wood similar to that required for metal stanchions, posts or other obstructions by the provisions of paragraph (c) of this section.

(e) When a Class A magazine measures more than 40 feet in any direction, a partition bulkhead shall be fitted within the magazine as near half length as practicable, extending from the deck to at least the top of the stowage. Such partition bulkhead shall be constructed to the same scantlings as the sides of the magazine, except the boardings may be spaced not more than 6 inches apart alternately on both sides of the uprights. This bulkhead shall be constructed before loading commences and care shall be exercised that nail points do not protrude beyond the surface of the boarding.

(f) A magazine constructed in accordance with the provisions of paragraphs (b) and (c) of this section shall comply with the provisions of § 146.29–75 (c).

§ 146.29–83 *Ammunition stowage.* Military explosives that are authorized to be given ammunition stowage by the provisions of § 146.29–100 shall be stowed in a location selected in accordance with the provisions of § 146.29–75. Dunnage shall be laid over metal decks or tank tops, except that dunnage is not required when decks or tank tops are coated with mastic, magnesite, or other equivalent material, and when palletized units are used and the pallets are constructed of wood. Dunnaging shall be fitted to protect packages or articles or military explosives from damage. Nothing within this paragraph shall be construed as requiring the entire interior of the cargo compartment to be covered with dunnage.

§ 146.29–85 *Chemical ammunition stowage.* Chemical ammunition or chemical agents in bulk that are authorized to be given chemical ammunition stowage by the provisions of § 146.29–100 shall be stowed under the following conditions:

(a) Shall be afforded the same protection as required for ammunition stowage.

(b) Stowage shall preferably be in a deep tank or a lower hold.

(c) When stowed in a deep tank, pump suctions shall be effectively sealed off to prevent the escape of any leakage which may take place. Sealing off shall be accomplished by inserting a blank flange in way of the suction side of the bilge pump manifold.

(d) When stowed in a lower hold or other compartment, the hatch covers, ventilators and pump's suction shall be effectively sealed off to prevent the escape of any leakage which may take place. Sealing off the pump's suction shall be accomplished by inserting a blank flange in way of the suction side of the bilge pump manifold.

(e) When the quantity of chemical ammunition or chemical agents in bulk exceeds the capacity of deep tanks and lower holds, other holds may be used, preference being given to other lower holds or to a tween-deck hold directly over a lower hold in which such substances are stowed.

(f) Chemical ammunition or containers of chemical agents in bulk stowed in a tween-deck shall not be stowed within 8 feet of the side of the vessel.

(g) When the quantity of chemical ammunition to be stowed on board the vessel does not justify the use of a deep tank or lower hold, a suitable tween-deck space may be selected and the ammunition stowed in a portable magazine especially constructed to prevent any leakage from the ammunition escaping outside of the magazine. Such portable magazine shall be located at least 8 feet from the ship's side.

(h) Before entering a deep tank, lower hold or other compartment containing chemical ammunition the air inside the compartment must be tested by competent personnel to ascertain if leakage has taken place. If leakage has occurred, the operation of removing the ammunition or chemical agent shall be conducted by skilled personnel, preferably representatives of the appropriate Army Technical Service (Chemical Corps or Ordnance Corps) or Navy Department.

§ 146.29–87 *Special stowage.* Special stowage may be on deck protected from the elements, in a deck house, mast house, mast locker or in a vacant stateroom: *Provided,* That such a location conforms to the distance separation rule applicable to the item so stowed and adjacent military ammunition: *And provided further,* That the space is ventilated and does not contain any vessel stores or machinery or equipment used during the navigation of the vessel and can be closed off from traffic while at sea. Dunnage shall be fitted to protect packages from damage by contacting any metal parts of the ship.

§ 146.29–89 *Portable magazine stowage.* Military explosives authorized to be given portable magazine stowage by the provisions of § 146.29–100 shall be stowed under the following conditions:

(a) Shall be located in a hold or on deck in accordance with the provisions of § 146.29–100 for the particular class of military explosive stowed therein.

(b) Portable magazines shall be constructed watertight of wood, or of metal lined with wood ¾-inch minimum thickness, and not more than 100 cu. ft. +10% (gross) of explosives shall be stowed therein.

(c) All inner surfaces of the magazine shall be smooth and free of nails, screws, or other projections.

(d) When constructed of wood the scantlings shall not be less than those required for a type "A" magazine in § 146.29–79, and a strong, close fitting hinged cover or door with an effective means of securing shall be provided.

(e) When constructed of metal, the minimum thickness of the metal shall be not less than ⅛-inch sheet, or formed material.

(f) Ammunition or containers of ammunition or explosives in bulk when stowed in a portable magazine shall be so stowed and secured that no displacement can occur either upwardly or laterally.

(g) When stowed on deck the magazine shall be protected from the direct rays of the sun. Runners, bearers, skids, or other suitable means shall be provided to elevate it a minimum of 4 inches from the deck. Pad eyes, ring bolts, or other suitable means shall be provided for lashing the magazines and they shall be so lashed, chocked or braced as to prevent movement in any direction.

(h) Portable magazines shall carry the legend "Inflammable—Keep Lights and Fire Away", or "Flammable—Keep Lights and Fire Away."

§ 146.29–91 *Pyrotechnic stowage.* (a) Pyrotechnic ammunition shall be afforded ammunition stowage or special stowage in a location away from heat and so protected as to insure no moisture contacting the packages. This class of ammunition shall not be stowed in a hold or compartment with any other military explosives, except as permitted by the admixture charts (§ 146.29–99). Pyrotechnics shall not be overstowed with other cargo.

(b) For limited quantities of pyrotechnic ammunition an alternate stowage may be utilized consisting of stowing in metal lockers or portable magazines so located as to conform with the provisions of paragraph (a) of this section as regards other explosives, over-stowage, heat, and moisture.

§146.29–93 *Stowage of blasting caps, detonators, primer detonators, etc.* Stowage of Classes III, VI and VIII type ammunition shall conform to the provisions of §§ 146.29–99 and 146.29–100, and to the following requirements:

(a) Class VIII ammunition, when stowed on board the same vessel with Classes II, IV, V, or VII military explosives, shall be separated as follows:

(1) With a permanent steel deck or bulkhead intervening, the separation shall not be less than 10 feet in any direction.

(2) Without a permanent steel deck or bulkhead intervening, the separation shall not be less than 25 feet in any direction.

(b) Class VIII ammunition, when stowed on board the same vessel with Classes IX, X, or XI military explosives, shall be separated as follows:

(1) With a permanent steel deck or bulkhead intervening, the separation shall not be less than 25 feet in any direction.

(2) Without a permanent steel deck or bulkhead intervening, the separation shall be not less than 40 feet in any direction.

(c) Class VIII ammunition shall not be stowed within 8 feet of the vessel's side.

(d) When Class VIII ammunition is stowed over tween-deck hatch covers, and military explosives are stowed in a hold below, a single layer of commercial 2-inch lumber is required over the tween-deck hatch cover to form the floor of the magazine. Under these conditions, wooden hatch covers may be considered an integral part of the permanent steel deck and the separation requirements of paragraphs (a) (1) and (b) (1) of this section shall apply.

(e) When Class III or VI ammunition is stowed with Class VIII ammunition the provisions governing the stowage and separations of Class VIII shall apply.

(f) When a portable magazine is used for detonator stowage, such magazine may be stowed in the square of a weather deck hatch.

(g) Upon approval by the Captain of the Port, a portable magazine containing Class VIII ammunition may be stowed in an isolated cabin or steel deck house secure from aircraft machine-gun fire and not subject to casual contact by persons on board the vessel.

§ 146.29–95 *Ventilation of magazine.* A magazine that is not fitted with ventilating ducts to the atmosphere shall be ventilated by omitting the top course of boarding on the sides of the magazine to provide a clear space at least 1 inch and not more than 6 inches below the lower flange or toe of the deck beam within the compartment or hold in which the magazine is constructed. Ventilators of systems feeding directly into a magazine or a hold in which military explosives are stowed shall be covered with a double layer of wire screen of not less than ⅛-inch mesh at the weather end of the cowl. This screen shall be attached securely in place in such a manner as to insure a positive closure.

§ 146.29–97 *Statements of characteristic properties and hazards.* (a) In § 146.29–100 there are statements in italics setting forth certain characteristics and hazards of the substances or articles listed therein. It is not intended, nor shall it be assumed, that these statements set forth all of the characteristic properties or hazards of the particular substance or article and such statements as are shown are informative only.

(b) For the purpose of the regulations in this subpart Army Class XII explosives are treated as follows:

(1) Ammonium nitrate is classified as an oxidizing material.

(2) Dinitrotoluene (DNT) is classified as a high explosive Class IX.

(3) Wet nitrocellulose wet with 20 percent of water is classified as a flammable solid.

(4) Wet nitrocellulose wet with 30 percent of alcohol or flammable solvent is classified as a flammable liquid.

§ 146.29–99 *Explosives admixture charts.* (a) Chart A of this section indicates the compatibility of the various classes of ammunition described in § 146.29–100. Chart B of this section indicates the compatibility within the class of items of Classes XI–C and XI–D.

(b) A shaded block at an intersection of horizontal and vertical columns in Chart A indicates that the particular class of military explosives shown by the heading of the horizontal column to the left must NOT be stowed in the same hold or compartment with the particular class of military explosives indicated by the heading of the vertical column at the top of the chart. A shaded block at the intersection of horizontal and vertical columns in Chart B indicates that that particular item shown by the heading of the horizontal column to the left must NOT be stowed "On deck" together unless separated by the superstructure, or in the same hold or compartment with the item indicated by the heading of the vertical column at the top of the chart. For specific provisions of stowage, and items included in each class, refer to § 146.29–100.

(c) In the charts the letters refer to the following notes:

NOTE A: Class II–F may be stowed in the same lower hold or tween-deck hold with Classes II–C, II–E, II–G, and III provided the Class II–F ammunition is bottom stowed and provided further that no other class of explosive or ammunition is stowed in the hold or tank below.

NOTE B: Class II–F may be stowed in the same deep tank, lower hold or tween-deck hold with Classes IV–A, IV–B, V, VII: *Provided*, That the Class II–F ammunition is bottom stowed: *And provided further*, That no other class of explosives or ammunition is stowed in the hold or tank below.

NOTE C: Propellant charges Class II–B for separate loading artillery shell filled with Class XI–A or XI–B chemical may be stowed together in the same hold or compartment: *Provided*, That the propellant charges are "top stowed", the two items being separated by a type "A" dunnage floor. When so stowed the propellant charges shall not be overstowed with any other cargo.

NOTE D: Class II–J TH incendiary filled ammunition shall be stowed only in a deep tank or lower hold, and in all cases, bottom stowed, except that a limited quantity shipment not in excess of 500 lbs. net TH content may be stowed on deck in a special magazine constructed of material as set forth in § 146.29–81 (c) and provided such magazine has an insulation of sand at least 1 foot thick on the bottom. This magazine shall be so mounted that there is at least 1 foot void between its bottom and the deck on which it is mounted, and its preferred location is aft. There shall be one charged fire hose in the immediate vicinity of this magazine when this class ammunition is stowed therein. There shall be only one such stowage per vessel and that stowage shall not be over living quarters or hatches in which military explosives, other dangerous articles, or ship's stores are stowed below.

NOTE E: Class V (unfuzed and no fuzes packed in container) and Class VII (unfuzed and no fuzes packed in container) may be stowed with Class X–A.

NOTE F: See Chart B for compatibility of items within this class.

NOTE G: May be stowed together if separate stowage is not available.

CHART A—COMPATIBILITY CHART FOR VARIOUS CLASSES OF EXPLOSIVES

● Shall NOT be stowed together □ May be stowed together A Check note for proper stowage

| I. C. C. class | | Class | I | II-A | II-B | II-C | II-D | II-E | II-F | II-G | II-H | II-J | III | IV-A | IV-B | V | VI | VII | VIII | IX-A | IX-B | IX-C | X-A | X-B | X-C | X-D | X-E | XI-A | XI-B | XI-C | XI-D | Class |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | Small-arms ammunition w/o explosive bullets, mechanical time fuze w/o booster and like items | I | □ | □ | □ | □ | □ | □ | □ | ● | D | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | ● | ● | ● | ● | □ | □ | ● | ● | I |
| A or B | Bulk propellants, such as ballistite, cordite, FNH, NH, and NC powder | II-A | □ | □ | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | II-A |
| B | Smokeless powder propellants, "Made-up bag charges" in outside shipping containers | II-B | □ | □ | □ | ● | ● | ● | ● | ● | ● | ● | ○ | □ | □ | □ | ● | □ | ● | □ | ● | ● | ● | ● | ● | ● | ● | C | C | ● | ● | II-B |
| B or C | Pyrotechnics (fireworks) | II-C | □ | ● | ● | □ | ● | □ | A | ● | ● | D | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | II-C |
| Var. | Chemical ammunition—WP or PWP filled (solid) | II-D | □ | ● | ● | ● | □ | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | II-D |
| Var. | Chemical ammunition—HC filled (solid) | II-E | □ | ● | ● | □ | □ | □ | A | □ | ● | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | II-E |
| Var. | Chemical ammunition—FS or FM filled smoke (liquid) | II-F | □ | ● | ● | A | ● | A | □ | A | ● | ● | A | B | B | B | B | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | II-F |
| Var. | Chemical ammunition—IM, NP, or PT filled, incendiary composition (oil gel) | II-G | □ | ● | ● | ● | ● | □ | A | □ | ● | D | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | II-G |
| None | Chemical ammunition—water activated | II-H | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | II-H |
| Var. | Chemical ammunition—TH filled incendiary composition (solid) | II-J | D | ● | ● | D | ● | ● | D | ● | ● | □ | ● | D | D | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | II-J |
| B or C | Fuzes, PD w/o booster; fuzes AT mine (nonchemical) w/o booster; fuzes, bomb tail w/o booster; fuzes, tracer; primers; primer detonators, etc | III | □ | ● | ● | ● | ● | □ | A | ● | ● | ● | □ | □ | □ | □ | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | III |
| B | Fixed ammunition w/o explosive projectiles (shell) and like items | IV-A | □ | ● | □ | ● | ● | ● | B | ● | ● | D | □ | □ | □ | □ | □ | □ | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | □ | ● | ● | ● | IV-A |
| A | Fixed and semifixed ammunition with explosive loaded projectile (shell) | IV-B | □ | ● | □ | ● | ● | ● | B | ● | ● | D | □ | □ | □ | □ | □ | □ | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | □ | ● | ● | ● | IV-B |
| A | Separate loading shells filled with explosive "D" | V | □ | ● | □ | ● | ● | ● | B | ● | ● | ● | □ | □ | □ | □ | □ | □ | ● | ● | ● | ● | E | ● | ● | ● | ● | ● | □ | ● | ● | ● | V |
| A | BD fuzes; PD fuzes with booster; bomb fuzes with booster; rocket fuzes with booster; and like items | VI | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | □ | □ | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | VI |
| A | Separate loading shells filled with HE other than explosive "D" | VII | □ | ● | □ | ● | ● | ● | B | ● | ● | ● | □ | □ | □ | □ | □ | ● | ● | ● | ● | ● | E | ● | □ | ● | ● | ● | □ | ● | ● | ● | VII |
| A or C | Blasting caps; detonators; AT mine fuzes (chemical); etc | VIII | □ | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | □ | ● | ● | ● | ● | ● | ● | E | ● | ● | ● | ● | ● | □ | ● | ● | VIII |
| A or B | Explosives in bulk, such as black powder, smokeless powder for small arms, etc | IX-A | □ | □ | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | IX-A |
| A | High explosives, such as dynamite, TNT, demolition blocks, etc | IX-B | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | IX-B |
| A | Initiating and priming explosives in bulk | IX-C | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | IX-C |
| A | Explosive bombs, mines, torpedoes, etc | X-A | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | E | E | ● | □ | ● | ● | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | X-A |
| A | Explosive bombs, mines, etc, packed with fuze in integral package | X-B | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | E | E | ● | □ | ● | ● | ● | □ | ● | □ | ● | ● | ● | ● | ● | ● | X-B |
| A | Guided missiles with solid propellant motors, HE warhead | X-C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | □ | ● | □ | ● | ● | ● | □ | ● | □ | ● | ● | ● | ● | ● | ● | X-C |
| A | Guided missiles with liquid propellant motors, HE warhead | X-D | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | ● | X-D |
| A | Guided missiles with liquid auxiliary power units, solid propellant motors, HE warhead | X-E | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | X-E |
| A or Pois. A | Chemical ammunition—lethal | XI-A | □ | ● | C | ● | ● | ● | □ | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | XI-A |
| A or Pois. C | Chemical ammunition—nonlethal | XI-B | □ | ● | C | ● | ● | ● | □ | □ | ● | ● | ● | □ | □ | □ | ● | □ | ● | ● | ● | ● | ● | ● | ● | ● | ● | □ | □ | ● | ● | XI-B |
| Var. | Fuels in containers for missile and rocket engines | XI-C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | F | ● | XI-C |
| Var. | Oxidizers in containers for missile and rocket engines | XI-D | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | F | XI-D |

CHART B—COMPATABILITY CHART FOR VARIOUS ITEMS WITHIN CLASS XI-C AND CLASS XI-D

Legend: ●● Shall NOT be stowed together □□ May be stowed together G Check note for proper stowage

| | Nomenclature | a | b | c | d | e | f | g | h | i | j | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z | aa | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a | Acids; i. e., nitric sulfuric; fuming red nitric; fuming white nitric; etc | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | a |
| b | Liquid hydrogen | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | b |
| c | Liquid fluorine | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | c |
| d | Liquid oxygen | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | d |
| e | Liquid nitrogen tetroxide | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | e |
| f | Anhydrous ammonia | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | f |
| g | Diborane; pentaborane | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | g |
| h | Aluminum borohydrides | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | h |
| i | Diethylene glycol dinitrate, liquid | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | i |
| j | Nitroglycerine, liquid | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | j |
| k | Hydrogen peroxide | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | k |
| l | Hydrazine; hydrazine hydrate | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | □□ | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | l |
| m | Dimethyl hydrazine, unsymmetrical | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | G | G | G | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | m |
| n | Alcohol-ethyl, methyl, furfuryl | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | G | □□ | G | G | G | G | ●● | G | G | ●● | ●● | ●● | ●● | ●● | n |
| o | Gasoline (AVGAS) | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | □□ | □□ | G | G | G | G | ●● | G | G | ●● | ●● | ●● | ●● | ●● | o |
| p | Heptane; kerosene; octane | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | □□ | □□ | □□ | G | G | G | G | ●● | G | G | ●● | ●● | ●● | ●● | ●● | p |
| q | Pentane | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | G | G | □□ | □□ | □□ | □□ | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | q |
| r | Analine | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | G | □□ | □□ | □□ | □□ | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | r |
| s | Monoethylaniline | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | G | □□ | □□ | □□ | □□ | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | s |
| t | Nitromethane, tetranitromethane | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | t |
| u | Diethylene triamine | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | G | □□ | □□ | □□ | □□ | ●● | □□ | □□ | ●● | ●● | ●● | ●● | ●● | u |
| v | Acetonitrile (methyl cyanide) | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | G | G | G | □□ | □□ | □□ | □□ | ●● | ●● | □□ | ●● | ●● | ●● | ●● | ●● | v |
| w | Potassium cuprocyanide | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | ●● | ●● | w |
| x | Sodium permanganate, solid | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | x |
| y | Calcium permanganate, solid | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | □□ | ●● | ●● | y |
| z | Lithium, metallic | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | ●● | ●● | z |
| aa | Metals, powdered | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | ●● | □□ | ●● | aa |

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| I | | | | | | |
| Small-arms ammunition w/o explosive bullets mechanical time fuze w/o booster and like items. | Small-arms ammunition is a variety of fixed ammunition and includes blank ammunition and shotgun shells designed to be fired from a pistol, revolver, rifle, shotgun, or similar weapon held by the hand, or by the hand and shoulder, or machine guns of caliber less than .75, or blank remover cartridges for pilot seat ejectors and canopy removing catapults, and consists of a metallic or paper cartridge case, a primer and a propelling charge, with or without bullet, shot, tear-gas material, tracer components or incendiary compositions or mixtures, but not including bullets loaded with high explosives. (For small arms ammunition with explosive bullets or projectiles see Class IV–B.)<br>Other items of ammunition or component parts of ammunition having similar hazard characteristics to small-arms ammunition are also included in this class.<br>Includes but is not limited to:<br>Cartridges:<br>Aircraft engine starter.<br>Armor piercing.<br>Armor piercing incendiary.<br>Armor piercing incendiary tracer.<br>Ball.<br>Blank.<br>Carbine.<br>Catapult, aircraft ejection seat.<br>Exactor.<br>High pressure test.<br>Ignition.<br>Incendiary.<br>Initiator.<br>Powder actuated tool, shipped separately.<br>Remover, aircraft canopy.<br>Rifle grenade.<br>Slick marker (MK1).<br>Tear gas.<br>Thruster.<br>Tracer.<br>Catapult w/cartridge:<br>Aircraft ejection seat.<br>Chemical delay pencil.<br>Detonating cord.<br>Empty cartridge case, primed.<br>Firing device w/o detonator.<br>Fuse, blasting cap.<br>Grenade projection adapter and similar inert devices when packed with blank small-arms cartridge.<br>Grenades, empty primed.<br>Igniter, torpedo.<br>Mechanical time fuze w/o booster.<br>Powder actuated tool w/cartridge packed in the same outside box.<br>Primer, lock combination.<br>Primer, lock electric.<br>Primer, small-arms.<br>Primers, percussion cap (such as used in small-arms ammunition).<br>Remover w/cartridge, aircraft canopy, M1.<br>Shell, shotgun.<br>Small-arms ammunition w/o explosive bullets.<br>T cutter (MK2).<br><br>NOTE: The U. S. Army and Navy definitions of small-arms is based on tactical considerations. The Coast Guard definition shall take precedence in all cases involving transportation, handling, and stowage as cargo on board merchant vessels which are subject to the regulations in this part. Small arms ammunition without explosive bullets does not require a permit. See § 146.29–13 and § 146.29–15. | "Cannon primers"<br>"Combination primers."<br>"Cordeau detonant."<br>"Empty cartridge case, primed."<br>"Explosive cable cutters."<br>"Explosive rivets"<br>"Fuse lighters"<br>"Grenades, empty, primed."<br>"Igniter."<br>"Percussion caps."<br>"Percussion fuse."<br>"Safety fuse."<br>"Small-arms ammunition."<br>"Small-arms ammunition, tear gas cartridge."<br>"Small-arms primers."<br>"Time fuze (mechanical w/o booster)." | C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C | The principal hazard in connection with the stowage of this class of ammunition is its involvement in fire from outside source. Under such conditions the presence of this type of ammunition will not contribute excessively to the fire.<br>Fire may be controlled and extinguished by flooding or spraying with large amounts of water.<br>Missiles from burning ammunition will not be projected with any considerable velocity.<br>Fire fighting personnel should take normal precautions and not expose themselves unnecessarily. | Any compartment or hold.<br>May be stowed in any hold above, any hold below, or a hold adjacent to one in which flammable liquids, flammable solids or oxidizing materials, flammable compressed gases, hazardous articles or combustible liquids are stowed.<br>Provisions of § 146.29–59 (Stowage adjacent to other dangerous articles) shall be complied with unless specifically exempted by the above paragraph.<br>May be overstowed. | 1. Observe marking on package to be certain that no small-arms ammunition with explosive bullets is included.<br>2. Do not subject packages to rough handling.<br>3. Maximum weight per draft shall not exceed 3,000 lbs. plus 10%.<br>4. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>5. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>6. The limiting weights noted above are for a 5-ton boom. See § 146.29–41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-A | | | | | | |
| Bulk propellants such as: Ballistite, Cordite, FNH, NH, and NC powders. | Smokeless powder for cannon in bulk. Rocket propellants in bulk.<br>Includes but is not limited to:<br>Ballistite (bulk) for any purpose in large grains, sheets, or masses.<br>Cordite.<br>FNH powder.<br>NC powder (SPD).<br>NH powder (SPDN).<br>SPCA powder.<br>SPCG powder. | "Propellant explosives, Class A."<br>"Propellant explosives, Class B." | A<br>B | Loose powder may be ignited by spark, friction, or intense heat.<br>Powder dust is especially hazardous. Burns rapidly with excessive heat.<br>Burning powder in ships hold may explode, producing structural damage and missiles.<br>May become unsafe if subjected to high temperatures.<br>If involved in a fire, immediately apply water freely and in quantity. | *Ammunition stowage*<br>Shall not be overstowed with any other kind of cargo except bomb fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>When Class I ammunition is stowed in the same hold or magazine with this Class the two stowages must be separated by a partition bulkhead or type "A" dunnage floor.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Packages shall be handled in such a manner as to insure that no spark or friction will occur.<br>4. Observe packages or containers for evidence of sifting or inability to retain contents and reject any showing such signs.<br>5. In event a package is damaged and powder is spilled, immediately stop operations and sweep up any loose powder.<br>6. Remove damaged container and residue of powder to a safe location.<br>7. Gravity roller conveyor shall not be used unless authorized by the Captain of the Port in ports or facilities under his jurisdiction. At other ports or facilities authority for such use may be granted by the Officer in Charge.<br>8. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>9. Cargo nets w/o trays, skipboards, pallets, or pieplates are not permitted.<br>10. The maximum permitted weight per draft when handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| II-B | | | | | | |
| Smokeless powder propellants.<br>"Made-up bag charges" in outside shipping containers. | Smokeless powder propellant charges (made-up charges) in cloth powder bags with igniter attached and with or without its primer and packed in outside metal or fiberpack containers.<br>Includes but is not limited to:<br>Cartridge starter, jet engine.<br>Charge, propelling for rod, earth blast driven.<br>Propellant charges for separate loading ammunition such as: 6", 8", 12", 14", 16", 155mm, 240mm, 280mm. | "Propellant explosives, Class B."<br>"Starter cartridge, jet engine." | B<br>B | Loose powder may be ignited by spark friction, or intense heat.<br>Powder dust is especially hazardous.<br>Burns rapidly with excessive heat.<br>Burning powder in ship's hold may explode producing structural damage and missiles.<br>May become unsafe if subjected to high temperatures.<br>If involved in a fire, immediately apply water freely and in quantity. | *Ammunition stowage*<br>Shall not be overstowed with any other kind of cargo except bomb-fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>When Class I ammunition is stowed in the same hold or magazine with this class the two stowages must be separated by a partition bulkhead of type "A" dunnage floor.<br>Propellant charges, of this class, for separate loading artillery shell, filled with Class XI-A or XI-B chemical may be stowed together in the same hold or compartment provided the propellant charges are "top-stowed," the two items being separated by a type "A" dunnage floor. When so stowed the propellant charges shall not be overstowed with any other cargo.<br>For stowage adjacent to other dangerous articles see section 146.29-59. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Packages shall be handled in such a manner as to insure that no spark or friction will occur.<br>4. Observe packages or containers for evidence of sifting or inability to retain contents and reject any showing such signs.<br>5. In event a package is damaged and powder is spilled, immediately stop operations and sweep up any loose powder.<br>6. Remove damaged container and residue of powder to a safe location.<br>7. Gravity roller conveyors shall not be used unless authorized by the Captain of the Port in ports or facilities under his jurisdiction. At other ports or facilities authority for such use may be granted by the Officer in Charge.<br>8. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>9. Cargo nets w/o trays, skipboards, pallets, or pieplates are not permitted.<br>10. The maximum permitted weight per draft when handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-C | | | | | | |
| Pyrotechnics (fireworks). | Fireworks are all manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion.<br>Includes but is not limited to:<br>Blue sump.<br>Bomb, target identification.<br>Cartridge igniter, turbo jet engine.<br>Delay electric igniters.<br>Depth charge markers, day.<br>Destroyer, document, No. 3.<br>Firecrackers, except M80.<br>Fire starter.<br>Fireworks—bombs.<br>Fireworks—shell.<br>Flares of all types, such as:<br>Aircraft.<br>Airport.<br>Bombardment.<br>Float.<br>High altitude parachute.<br>Parachute.<br>Parachute trip.<br>Tow target.<br>Trip.<br>Flash cartridge 72 grains or under.<br>Flash reducer (non black powder).<br>Flash sheets (ltd. packing, ICC).<br>Float lights.<br>Fuse igniters.<br>Fuse lighters.<br>Fusee, warning, railroad.<br>Igniters, M1 and M2.<br>Illuminating grenades.<br>Metal powders (ltd. packing ICC).<br>Photographic flash powder (ltd. packing ICC).<br>Pull wire fuse lighter.<br>Pyrotechnic mixture, 72 grains or under.<br>Quick match.<br>Roman candles.<br>Salutes.<br>Signals:<br>Aircraft float light.<br>Day distress aircraft.<br>Distress hand smoke.<br>Double star.<br>Drift day (bronze powder, inert).<br>Drift night (red phosphorous).<br>Emergency identification: smoke, star submarine.<br>Ground cluster.<br>Ground high burst ranging.<br>Ground parachute smoke.<br>Ground parachute star.<br>Highway.<br>Miniature practice bomb.<br>Pistol rocket: Comet shower, smoke star.<br>Single star.<br>Submarine float.<br>Simulator:<br>Boobytrap, flash, illuminating, whistling, 72 grains or under.<br>Hand grenade, M116.<br>Smoke pots w/o oil.<br>Squibs of all kinds.<br>Tear gas pot fuse.<br>Torpedo signalling, railway.<br>Tracers.<br>Very signal lights. | "Common fireworks."<br>"Electric squibs"<br>"Fuse igniters"<br>"Fuse lighters"<br>"Igniter"<br>"Railway fusee"<br>"Railway torpedoes"<br>"Safety squibs"<br>"Special fireworks" | C<br>C<br>C<br>C<br>C<br>B<br>C<br>B | The principal hazard is involvement in a fire.<br>Some pyrotechnics may ignite spontaneously if exposed to moisture or high temperatures, but under these conditions most types tend to become less sensitive and more difficult to ignite.<br>Aircraft flares and high burst ranging ground signals involved in a fire may explode.<br>Most other types burn with intense heat and without serious explosion.<br>If involved in a fire immediately apply water freely and in quantity.<br>Steam or fog is also effective but less so than water.<br>Fire fighting personnel should work from behind barriers and not expose themselves unnecessarily. | *Ammunition stowage, deep tank stowage or pyrotechnic locker*<br>Shall be stowed away from heat and in a dry location, protected against moisture contacting the stowage.<br>Shall not be overstowed with any other kind of cargo.<br>May be stowed in the same deep tank, lower hold or tween-deck hold with II-F provided the Class II-F ammunition is bottoms stowed and provided that no other class of explosives or ammunition is stowed in the hold below such stowage.<br>May be stowed in the same deep tank or lower hold as Class II-J provided the II-J ammunition is bottom stowed.<br>For stowage adjacent to other dangerous articles see § 146.29-39. | 1. Handle by hand or mechanical means.<br>2. Do not drag, drop, tumble, walk or otherwise subject packages to shock.<br>3. Do not load during excessive rainy weather, unless complete protection against moisture coming in contact with the package is provided.<br>4. Do not use chute in loading or unloading.<br>5. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>6. Cargo nets without trays, skipboards, pallets, or pieplates are not permitted.<br>7. Packages or containers shall be stowed in the position indicated by their marking.<br>8. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>9. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>10. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>11. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-D | | | | | | |
| Chemical ammunition. WP or PWP filled (solid). | All chemical ammunition, including fixed, semi-fixed and separate loading, filled with WP or PWP (white phosphorus) when assembled or packed with or w/o their ignition elements, bursting charges, fuzes or propellants.<br>WP or PWP shipped in bulk in drums, barrels, or other authorized shipping containers shall be classified as a flammable solid.<br>WP or PWP when shipped in authorized ICC specification containers or Chemical Corps specification containers of integrity equal to ICC containers (including projectiles, bombs, and rocket heads, w/o ignition elements, bursting charges or fuzes), may be handled and stowed either as a flammable solid or as chemical ammunition Class II-D.<br>Includes but is not limited to:<br>Bombs, aircraft, WP or PWP filled.<br>British Calling Cards.<br>Fire leaves.<br>Grenades, hand, WP or PWP filled.<br>Grenades, rifle, WP or PWP filled.<br>Igniters, phosphorus filled.<br>Projectiles (shells) WP or PWP filled packed w/ or w/o propellants.<br>Rockets Heads, WP or PWP filled.<br>Rockets, assembled w/motors, WP or PWP filled.<br><br>NOTE: The U. S. Army and Navy, when shipping ammunition filled with white phosphorus, mark such ammunition and the containers thereof with the word "smoke" and the symbol WP or PWP. The ammunition is also marked with one yellow band. | "Ammunition for cannon with explosive projectile."<br>"Ammunition for cannon with smoke projectile."<br>"Explosive bomb"<br>"Explosive projectile."<br>"Igniter"<br>"Special fireworks"<br>Shipping name of item when shipped as flammable solid. | A<br>A<br>A<br>A<br>C<br>B<br>F. S. | The principal characteristic of white phosphorus is that of spontaneously igniting upon exposure to air, burning with an intensely hot flame, and giving off large volumes of white smoke.<br>The fumes are highly discomforting.<br>Burning phosphorus gives off phosphorus oxide which is toxic upon sustained exposure thereto.<br>Phosphorus is intensely poisonous when taken internally. It becomes liquid at 111° F.<br>Leakage which sometimes occurs, usually gives warning by smoke.<br>Ammunition fitted with fuzes and boosters, if involved in a fire will usually explode with moderate violence thus tending to spread the fire rapidly.<br>Apply water freely and in quantity to control spread of fire.<br>Steam or fog is also effective but less so than water.<br>It is necessary to keep the loose WP or PWP completely covered with water to prevent reignition.<br>Organic material contaminated with WP or PWP such as dunnage in the holds of vessels, must be removed and disposed of by burning. Otherwise after drying out, these substances are likely to reignite.<br>Rockets, WP filled, assembled with motor and involved in a fire will present an additional hazard due to the propulsive nature of the rocket.<br>Loose phosphorus in contact with skin tissue will adhere causing painful burns and continue to consume skin tissue until removed. A solution of copper sulphate is effective in counteracting this action.<br>Use rubber protective gloves, boots, aprons, and gas masks to provide effective protection. | *Ammunition stowage, chemical ammunition stowage, or dorp tank stowage.*<br><br>It is important to stow in locations not subject to temperatures above 100° F.<br>When shipments of Army ammunition cannot be so stowed the following shall be complied with: WP or PWP filled items of ammunition shall be stowed in a nose up position unless other requirements are specified by the Army. The position of the nose end of the item of ammunition is marked on the outside package or container.<br>Drums or other authorized ICC or Chemical Corps specification containers filled with WP or PWP may be stowed in the same hold or compartment with chemical ammunition Class II-D.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Observe packages or projectiles (shells) for leakage and reject any showing such signs.<br>5. Packages or containers shall be stowed in the position indicated by their marking.<br>6. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>7. Cargo nets w/o trays, skipboards, pallets, or pieplates are not permitted.<br>8. The maximum permitted weight per draft when handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,000 lbs. plus 10%.<br>9. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>10. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>11. Wire rope slings are permitted when handling unboxed bombs or containers filled with WP or PWP. (See table Limiting Loads, Class X-A.)<br>12. Drums of WP or PWP shall not be handled by attaching hooks to the chime of the drums.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-E<br><br>Chemical ammunition, HC filled (solid). | All chemical ammunition including fixed, semi-fixed and separate loading, filled with HC (Hexachloroethane, a smoke mixture) when assembled or packed w/ or w/o their ignition elements, bursting charges, ejection charges, fuzes or propellants.<br>HC mixture shipped in bulk in drums, barrels or other authorized shipping containers shall be classified as an oxidizing material.<br>HC mixture when shipped in authorized ICC specification containers or Chemical Corps specification containers of integrity equal to ICC containers (including shells and bombs w/o ignition elements, bursting charges or fuzes) may be handled and stowed either as an oxidizing material or as chemical ammunition Class II-E.<br>Includes but is not limited to:<br>Bombs, aircraft, smoke, HC filled.<br>Bombs, floating, smoke, HC filled.<br>Bombs, smoke identification, HC filled.<br>Float, smoke, HC filled.<br>Grenades, hand, HC filled.<br>Grenades, signal, HC filled.<br>Grenades, colored smoke, HC filled.<br>Pots, smoke, HC filled.<br>Shells, artillery, smoke, HC filled.<br>Shells, mortar, smoke, HC filled.<br><br>NOTE: The U. S. Army and Navy, when shipping ammunition filled with HC smoke or colored smoke, mark such ammunition HC smoke or colored smoke and mark the ammunition with one yellow band. | "Ammunition for cannon with smoke projectile."<br>"Explosive bomb"<br>"Explosive projectile."<br>"Special fireworks"<br>Shipping name of item when shipped as oxidizing material. | A<br><br>A<br>A<br><br>B<br>Oxy. M. | HC (hexachloroethane mixture) is subject to spontaneous ignition through the action of moisture on the HC mixture.<br>Once started, the temperature rises quickly and may be sufficient to cause adjacent containers of HC to ignite. The reaction once started is self-supporting and requires no oxygen.<br>Water can be applied freely to prevent spread of fire. The use of Foamite, $CO_2$ or fog is less effective.<br>Personnel fighting fire involving HC articles of ammunition especially when stowed in the hold of a vessel, should avoid working in dense smoke if not wearing rescue breathing apparatus or gas masks.<br>As there will probably be an oxygen deficiency in dense smoke, self-contained breathing apparatus should always be used in preference to gas masks. | *Ammunition stowage, chemical ammunition stowage, or deep load stowage*<br><br>It is important to stow in locations not subject to temperatures above 100° F. and protected from moisture.<br>Stowage shall be accessible from cargo hatch or other access means to the hold or compartment.<br>Drums or other authorized ICC or Chemical Corps specification containers filled with HC may be stowed in the same hold or compartment with chemical ammunition Class II-E.<br>May be stowed in the same deep tank, lower hold or tween-deck hold with Class II-F provided the Class II-F ammunition is bottom stowed and provided further that no other class of military explosives is stowed in the hold or tank below.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Observe packages or projectiles (shells) for leakage and reject any showing such signs.<br>5. Packages or containers shall be stowed in the position indicated by their markings.<br>6. Cargo handling stevedore gear may be trays, skipboards, pallets or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>7. Cargo nets w/o trays, skipboards, pallets, or pieplates are not permitted.<br>8. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>9. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>10. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>11. Wire rope slings are permitted when handling unboxed bombs or containers filled with HC mixture. (See table of Limiting Loads, Class X-A.)<br>12. Drums of HC mixture shall not be handled by attaching hooks to the chime of the drums.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-F | | | | | | |
| Chemical ammunition. FS or FM smoke filled (liquid). | All chemical ammunition including fixed, semi-fixed and separate loading filled with smoke, FS (sulfur trioxide in chlorsulfonic acid) or FM (titanium tetrachloride) when assembled or packed with or w/o their bursting charges, fuses, or propellants.<br>FS or FM shipped in drums, barrels, cylinders or other authorized containers shall be classified as a corrosive liquid.<br>FS or FM when shipped in authorized ICC specification containers or Chemical Corps specification containers of integrity equal to ICC containers (including shells, rocket heads, w/o bursting charges or fuses) may be handled and stowed either as corrosive liquid or as a chemical ammunition Class II-F.<br>Includes but is not limited to:<br>Grenades, frangible, smoke FS or FM filled.<br>Grenades, smoke, FS or FM filled.<br>Rockets, FS or FM filled.<br>Shell, artillery, FS or FM filled.<br>Shell, mortar, FS or FM filled.<br>Spotting charges, FS filled.<br><br>NOTE: The U. S. Army and Navy, when shipping ammunition filled with FS or FM smoke, mark such ammunition and the containers thereof with the word "Smoke" and the symbol FS or FM. The ammunition is also marked with one yellow band. | "Ammunition for cannon with smoke projectile."<br>"Explosive projectile."<br>"Rocket ammunition with smoke projectile."<br>Shipping name of item when shipped as corrosive liquid. | A<br>A<br>A<br>Cor. L. | FS (sulfur trioxide in chlorsulfonic acid) and FM (titanium tetrachloride) are liquids which fume badly when hot. They react violently with small amounts of water and form a dense white smoke upon release to the atmosphere.<br>FS is highly corrosive both as a liquid and as a smoke.<br>FM is corrosive in liquid only, but its smoke is very irritating.<br>Leakage of FS or FM should be washed off immediately with large volumes of water.<br>Personnel working in a confined space where high concentrations of FS or FM smoke exists should use rubber protective gloves, boots, aprons and gas masks for effective protection. | *Ammunition stowage, chemical ammunition stowage, or deep tank stowage*<br><br>It is important to stow away from heat and to protect from moisture.<br>May be stowed in the same deep tank, lower hold or tween-deck hold with Classes II-C, II-E, II-G, and III provided the Class II-F ammunition is bottom stowed and provided further that no other class of explosives or ammunition is stowed in the hold or tank below.<br>May be stowed in the same deep tank, lower hold or tween-deck hold with Classes IV-A, IV-B, V, and VII provided the Class II-F ammunition is bottom stowed and provided further that no other class of explosives or ammunition is stowed in the hold or tank below.<br>Drums or other authorized ICC or Chemical Corps specification containers filled with FS or FM may be stowed in the same hold or compartment with chemical ammunition Class II-F.<br>Shall not be stowed over other types of ammunition.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Observe packages or projectiles (shells) for leakage and reject any showing such signs.<br>4. Containers or projectiles shall be stowed in the position indicated by their marking.<br>5. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>6. Cargo nets w/o trays, skipboards, pallets, or pieplates are not permitted.<br>7. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>8. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>9. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>10. Drums of FS or FM shall not be handled by hooks attached to the chime of the drums.<br>11. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-G<br>Chemical ammunition. Incendiary composition, IM, PT or NP filled (oil gel). | Chemical ammunition filled with IM, PT or NP (thickened fuels) when assembled or packed with or w/o ignition elements, bursting charges or fuzes.<br>IM, PT or NP shipped in drums, barrels or other authorized shipping containers shall be classified as a flammable solid.<br>IM, PT or NP when shipped in authorized ICC specification containers or Chemical Corps specification containers of integrity equal to ICC containers (including bombs w/o ignition elements, bursting charges or fuzes) may be handled and stowed either as a flammable solid or as chemical ammunition Class II-G.<br>Includes but is not limited to:<br>Bombs.<br>Bombs, cluster incendiary.<br>Frangible grenades.<br>NOTE: The U. S. Army and Navy, when shipping ammunition filled with these incendiary compositions, mark such ammunition or containers thereof with the Chemical Corps symbol of the filler and one purple band. | "Explosive bomb"...<br>"Grenade, hand"....<br>"Special fireworks".<br>Shipping name of item when shipped as flammable solid. | A<br>A<br>B<br>F. S. | The principal hazard of IM, PT or NP filled items is involvement in a fire. They burn rapidly with intense heat. Extinguishment of fires is best accomplished by means of water fog.<br>Fog foam or a foam steam (mechanical or chemical) is likewise effective.<br>$CO_2$ should not be used unless the fire is small and in its incipient stage.<br>In holds of a vessel large volumes of water are recommended as a cooling agent provided such may be employed without "floating off" burning gel.<br>The vapors from heated napalm are toxic and rescue breathing apparatus should be worn while working in nauseable concentrations.<br>Clusters of incendiary bombs in this category may contain a certain percentage of bombs having a high explosive charge capable of causing fragments which could be dangerous to fire-fighting personnel. Incendiaries of this type may contain ignition components of WP adding an additional hazard. | *Ammunition stowage, chemical ammunition stowage, or deep tank stowage*<br>Shall not be stowed within 10 feet of a heat bulkhead.<br>May be stowed in the same deep tank, lower hold or tween deck hold with Class II-F provided the Class II-F ammunition is bottom stowed and provided further that no other class of explosives or ammunition is stowed in the hold or tank below.<br>May be stowed in a deep tank or lower hold with Class II-J incendiary ammunition provided the Class II-J is bottom stowed.<br>For stowage adjacent to other dangerous articles, see § 146.29-89.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages, containers or bombs to shock.<br>3. Do not use chute in loading or unloading.<br>4. Observe packages, containers or bombs for failure or inability to retain contents and reject any showing such signs.<br>5. Packages, or containers shall be stowed in the position indicated by their marking.<br>6. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>7. Cargo nets w/o trays, skipboards, pallets or pieplates are not permitted.<br>8. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>9. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>10. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>11. Wire rope slings are permitted when handling unboxed bombs or containers filled with IM, PT or NP. (See table of Limiting Loads, Class X-A.).<br>12. Drums of IM, PT, or NP shall not be handled by attaching hooks to the chime of the drums.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| II-H<br>Chemical ammunition. Water activated. | Chemical ammunition filled with sodium, calcium carbide, calcium phosphide, lithium hydride, with or w/o explosive components.<br>Includes but is not limited to:<br>Beacons, NEA.<br>Can, false target.<br>Depth charge markers, night.<br>Grenades, sodium filled.<br>Igniters, sodium filled.<br>Pots, torpedo torch.<br>Shell, false target. | There are no provisions in the current ICC regulations for the marking of this class of ammunition. | ---------- | On contact with moisture, metallic sodium or lithium hydride will liberate large quantities of hydrogen gas thus producing an explosive hazard.<br>The reaction of metallic sodium with water is sufficiently violent to cause ignition of the liberated hydrogen.<br>Fumes from burning sodium are caustic.<br>On contact with moisture, calcium carbide or calcium phosphide will liberate phosphine and acetylene gases.<br>The phosphine is toxic but extremely unstable, ignites spontaneously and at the same time ignites the acetylene gas.<br>Fires involving these items cannot be extinguished by water, carbon dioxide or foam.<br>Smothering with an inert substance such as dry sand or dry soda ash offers effective control.<br>Jettisoning should not be accomplished in a port or roadstead as the floats will continue to burn until filler is consumed jeopardizing other vessels and piers. | *Special stowage*<br>On deck in a portable magazine, in a deck house or other location readily accessible for jettisoning.<br>Stowage shall be waterproof.<br>Shall not be stowed with any other class of military explosives or any other dangerous articles. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Do not load during excessive rainy weather unless complete protection against moisture coming in contact with the package is provided.<br>5. Observe packages or containers for evidence of sifting or inability to retain contents and reject any showing such signs.<br>6. In event a package is damaged and powder is spilled, immediately stop operations and sweep up any loose powder.<br>7. Remove damaged container and residue of powder to a safe location.<br>8. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>9. Cargo nets w/o trays, skipboards, pallets or pieplates are not permitted.<br>10. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| II-J | | | | | | |
| Chemical ammunition. TH incendiary composition filled (solid). | All chemical ammunition filled with incendiary composition TH (thermite, thermate or thermate magnesium) with or w/o fuze or explosive element.<br>Includes but is not limited to:<br>Bombs, incendiary cluster.<br>Grenades, thermate.<br>Incendiary safe destroyers.<br>Thermite burning charges.<br>Thermite charges under water.<br>Thermite igniters.<br>Thermite units 10 lbs.<br><br>NOTE: The U. S. Army and Navy, when shipping ammunition filled with these incendiary compositions, mark such ammunition or containers thereof with the Chemical Corps symbol of the filler and with one purple band. | "Explosive bomb"<br>"Grenade, hand"<br>"Igniter"<br>"Special fireworks" | A<br>A<br>C<br>B | The principal hazard of TH filled items is involvement in a fire.<br>They burn rapidly with intense heat and usually form large quantities of molten iron.<br>The presence of a small explosive charge in some TH items forms an additional hazard in case of a fire.<br>Carbon dioxide and carbon tetrachloride extinguishers should not be used to combat fires involving TH because the reaction of carbon tetrachloride with molten metal produces toxic gases and that of carbon dioxide on magnesium may produce an explosion.<br>In the hold of a vessel large volumes of water are recommended as an extinguishing agent. Fire fighters should work from behind barriers when possible. | *Deep tank stowage or ammunition stowage*<br>Shall be stowed only in a deep tank or lower hold, and in all cases bottom stowed.<br>For stowage adjacent to other dangerous articles see § 146.29-39.<br>For limited quantity shipments not in excess of 500 lbs. net TH content, see § 146.29-99 (b), NOTE D. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Observe packages or containers for evidence of failure or inability to retain contents and reject any showing such signs.<br>5. Cargo handling stevedore gear may be trays, skidboards, pallets or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>6. Cargo nets w/o trays, skidboards, pallets or pieplates are not permitted.<br>7. The maximum permitted weight per draft when handled by pallet, skidboard, tray or pieplate, fitted with cargo net or sideboards shall not exceed 4,000 lbs. plus 10%.<br>8. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>9. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>10. Wire rope slings are permitted when handling unboxed bombs or containers filled with TH. (See table of Limiting Loads, Class X-A.)<br>11. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| III | | | | | | |
| Fuzes, PD w/o boosters; fuzes, AT mine, non-chemical, w/o boosters; fuzes, bomb tail, w/o boosters; fuzes, tracer; primer detonators; primers, etc. | Point fuzes w/o boosters for projectiles and rockets; anti-tank mine fuzes (non-chemical) w/o booster; bomb tail fuzes w/o boosters; primer detonators, cannon primers, other than lock primers, when packed in separate shipping containers.<br>Includes but is not limited to:<br>Case combination primer.<br>Case electric primer.<br>Case percussion ignition primer.<br>Case percussion primer.<br>Combination electric and percussion primer.<br>Detonating fuzes, Class C, made and packed so that they will not cause functioning of other fuzes, explosives or explosive devices if one of the fuzes detonates in a shipping container.<br>Fuze, anti-tank, mine (non-chemical) w/o booster.<br>Fuze, base percussion.<br>Fuze, bomb tail, w/o booster.<br>Fuze, PD w/o booster.<br>Fuze, percussion.<br>Fuze, MTSQ w/o booster.<br>Fuze, tracer.<br>Fuze, TSQ w/o booster.<br>Igniter, Jato, such as M151.<br>Igniter for rockets, i. e. M12, M18, M20.<br>Magazine, extension primers.<br>Mines practice with spotting charge and/or fuze.<br>Percussion primers other than lock.<br>Primer, detonators, fuze, bomb, various delays. | "Cannon primers"<br>"Combination fuzes."<br>"Combination primers."<br>"Detonating fuzes, Class C."<br>"Igniter, jet thrust"<br>"Percussion caps"<br>"Percussion fuzes"<br>"Time fuzes"<br>"Tracer fuzes" | C<br>C<br>C<br>C<br>B<br>C<br>C<br>C<br>C | The amount of explosives in single items of this class varies from 30 to 500 grains. It is likely they will explode progressively.<br>Structural damage caused by the pressures generated would probably be limited to the immediate vicinity.<br>Missiles are light and usually fall within 300 feet.<br>These types of ammunition are loaded with explosives that are sensitive to shock and friction.<br>Shock and fire are the principal hazards to this type of ammunition.<br>If involved in a fire, fire fighting personnel should take normal precautions and not expose themselves unnecessarily.<br>Fire may be controlled and extinguished by flooding or spraying with large amounts of water. | *Ammunition stowage, special stowage, or portable magazine which may be stowed in a hold or on deck*<br>This class of ammunition shall not be overstowed with any other cargo or ammunition except Classes VI and VIII.<br>May be stowed in the same lower hold or tween-deck hold with Class II-F provided the Class II-F is bottom stowed and provided further that no other class of military explosives is stowed in the hold below or the deep tank directly below.<br>For stowage adjacent to other dangerous articles see § 146.29-39. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Gravity roller conveyors not authorized.<br>4. Do not use chute in loading or unloading.<br>5. Trays with sideboards shall be used when loading by mechanical means.<br>6. Packages shall not be stacked on a tray to a height above its sideboards.<br>7. Trays shall not be swung unnecessarily over open hatches or holds containing military explosives or other dangerous cargo.<br>8. Trays shall be hoisted and lowered carefully and deposited without undue shock on a mattress or other shock absorbing material.<br>9. Packages shall be stowed in the position indicated by their markings.<br>10. The maximum permitted weight per draft when handled by tray with sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tiers from shifting or falling from the draft.<br>13. A portable magazine in which this class of ammunition is stowed and hoisted on board a vessel as a unit load shall not exceed 4,000 lbs. plus 10%.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| IV-A | | | | | | |
| Fixed ammunition without explosive projectile (shell) and like items. | Fixed ammunition with solid projectile, blind loaded projectile, empty projectile or without projectile—(the explosive components consisting of the primer and powder charges in a cartridge case); cartridge cases primed and containing powder charges; practice grenades; practice and target rockets.<br>Includes but is not limited to:<br>Ammunition for cannon:<br>Blank.<br>Blind loaded and plugged (BL & P).<br>Blind loaded with tracer (BL & T).<br>Empty projectile.<br>Solid projectile.<br>Without projectile.<br>Ammunition, armor piercing, shot (w/o HE).<br>Cartridges, blank, saluting.<br>Cartridges, semi-fixed for Navy type guns: 5"/38, 5"/51, 5"/54, 6"/47.<br>Cartridges, semi-fixed 4.7" (Army w/o projectile).<br>Charges:<br>Catapult (other than aircraft personnel).<br>Grenade, hand, practice.<br>Jato (ICC Class B).<br>Rocket—target.<br>Rocket motors (w/o rocket heads).<br>Rocket, packed with but not assembled to inert rocket heads.<br>Rocket, practice, assembled with inert head. | "Ammunition for cannon with empty projectile." | B | The principal hazard associated with this class of ammunition is its involvement in a fire.<br>Pressures which would cause serious structural damage are not usually generated.<br>If involved in a fire, it is possible the fire may be controlled or extinguished by flooding or spraying with large amounts of water.<br>Fire-fighting personnel should take appropriate precautions and not expose themselves. | *Ammunition stowage*<br>Boxed and crated ammunition may be overstowed with nondangerous cargo and permitted explosives.<br>Tanked ammunition may be overstowed with bomb fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>May be stowed in the same deep tank, lower hold or tweendeck hold with Class II-F ammunition provided the Class II-F is bottom stowed and provided further that no other class of military explosives is stowed in the hold or the tank below.<br>May be stowed in the same deep tank or lower hold with Class II-J ammunition provided the Class II-J is bottom stowed.<br>For stowage adjacent to other dangerous articles see § 146.29-50. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>4. Cargo nets without trays, skipboards, pallets or pieplates are not authorized.<br>5. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>6. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>7. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>8. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| | | "Ammunition for cannon with inert-loaded projectile." | B | | | |
| | | "Ammunition for cannon with solid projectile." | B | | | |
| | | "Ammunition for cannon w/o projectile." | B | | | |
| | | "Jet thrust units (JATO) Class B." | B | | | |
| | | "Special fireworks"... | B | | | |
| IV-B | | | | | | |
| Fixed and semi-fixed ammunition with explosive loaded projectile or shell. | Fixed and semifixed ammunition, packed as complete rounds (including artillery, mortar and gun ammunition) grenades and rockets, when assembled with explosive projectiles or bursting charge. Small-arms ammunition with explosive bullets or projectiles.<br>Includes but is not limited to:<br>Anti-personnel mine, M2 and M3.<br>Artillery ammunition of calibers 0.75" to 5" inclusive, with explosive, illuminating or incendiary projectiles.<br>Grenades, hand, defensive.<br>Grenades, hand, defensive, TNT filled, fuzed or unfuzed.<br>Grenades, hand, fragmentation.<br>Grenades, rifle, AT.<br>Grenades, rifle, HE filled.<br>Gun ammunition of calibers 0.75" to 5" inclusive, with explosive, illuminating or incendiary projectiles.<br>Mortar ammunition (explosive or illuminating).<br>Rockets, with explosive heads packed in the same container with, but not assembled to motors.<br>Rockets, 2.36" A. T. (Bazooka).<br>Rockets, 2.75" FFAR, assembled or unassembled.<br>Rockets, 3.5" HEAT.<br>Small-arms ammunition with explosive bullets. | "Ammunition for cannon with explosive projectile." | A | Articles in this class present a severe fire hazard and usually explode progressively, only a few boxes at a time, many explosions of individual rounds being of a very low order.<br>Pressure which would cause serious structural damage is not usually generated.<br>Most missiles would fall within 600 feet.<br>If involved in a fire it is possible the fire may be controlled or extinguished by flooding or spraying with large amounts of water.<br>Fire fighting personnel should take appropriate precautions and not expose themselves unnecessarily. | *Ammunition stowage*<br>Boxed and crated ammunition may be overstowed with nondangerous cargo and permitted explosives.<br>Tanked ammunition may be overstowed with bomb fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>May be stowed in the same deep tank, lower hold or tween-deck hold with Class II-F ammunition provided the Class II-F is bottom stowed and provided further that no other class of military explosives is stowed in the hold or tank below.<br>May be stowed in the same deep tank or lower hold with Class II-J ammunition provided the Class II-J is bottom stowed.<br>For stowage adjacent to other dangerous articles see § 146.29-50. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Cargo handling stevedore gear may be trays, skipboards, pallets or pieplates, provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>4. Cargo nets without trays, skipboards, pallets or pieplates are not authorized.<br>5. The maximum permitted weight per draft when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>6. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>7. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>8. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| | | "Ammunition for cannon with incendiary projectile." | A | | | |
| | | "Ammunition for small arms with explosive bullets." | A | | | |
| | | "Ammunition for small arms with explosive projectile." | A | | | |
| | | "Hand grenades"... | A | | | |
| | | "Rifle grenades"... | A | | | |
| | | "Rocket ammunition with explosive projectile." | A | | | |
| | | "Rocket ammunition with illuminating projectile." | A | | | |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| V | | | | | | |
| Separate loading shells filled with explosive "D". | Separate loading shells of all calibers filled with explosive "D", fuzed or unfuzed; and shells filled with explosives "D", fuzed or unfuzed, not assembled to or packed with cartridge cases.<br>Explosive "D" is used as a bursting charge for all projectiles which must withstand severe stresses and shocks before detonating; such as armor-piercing projectiles.<br>Includes but is not limited to:<br>Armor piercing shells.<br>Deck piercing shells.<br><br>NOTE: In general, Classes V and VII types of projectiles will be shipped in accordance with the following basic rules: Point fuzed shells with false ogives will be crated. Point fuzed shells without false ogives will have grommets and eyebolt lifting plugs. Base fuzed shells with relatively fragile parts such as false ogives, steel caps and windshields will be crated. Base fuzed shells without false ogives will not be crated but will have grommets. All Navy 6" through 16" separate loading projectiles are explosive "D" loaded. | "Explosive projectile". | A | If involved in a fire will very likely detonate as a result of exposure to heat.<br>These shells usually explode one at a time and in practically all cases with low order explosion. There is no certainty that en masse explosion will not occur.<br>Most missiles will fall within 1,200 feet. | *Ammunition stowage*<br>This ammunition, boxed, unboxed, or palletized units thereof, may be overstowed. Care must be taken not to damage rotating bands of shells that are not in containers.<br>May be stowed in the same deep tank, lower hold or tween deck hold with Class 11-F ammunition provided the Class II-F is bottom stowed and provided further that no other class of military explosives is stowed in the same hold below or in the tank below.<br>Class V when unfuzed and no fuzes packed in container may be stowed with Class X-A.<br>For stowage adjacent to other dangerous articles see § 146.29-39. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Bare projectiles (shells) shall not be rolled except under hand control and on a level surface without appreciable incline.<br>5. Protect rotating bands from damage. Avoid injury to or removal of paint or grease from bourrelet.<br>6. When handling items packed in outside containers, cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates, provided they are fitted with cargo nets or sideboards. Boxes or trays with removable sides are authorized.<br>7. Shell tongs or lifting stud and eye are authorized. Wire slings of a design approved by the Captain of the Port may be used.<br>8. Cargo nets without trays, skipboards, pallets, or pieplates are not permitted.<br>9. The maximum permitted weight per draft when handled by tray, skipboard, pallet, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>10. Single shells weighing in excess of 2,201 lbs. must be loaded or unloaded one at a time.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed so as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| VI | | | | | | |
| BD fuzes.<br>Bomb fuzes with boosters.<br>PD fuzes with boosters.<br>Rocket fuzes with boosters. | Base detonating fuzes (for all calibers) and PD fuzes with boosters; bomb and rocket fuzes with boosters; auxiliary booster assembled to or packed with the fuze; depth charge pistol with detonator and with or without booster assembled to or packed with pistol. (For boosters, auxiliary boosters, bursters, etc., having no initiating or priming elements and packed independently, see Class X-A).<br>Includes but is not limited to:<br>Adapter booster, with detonator.<br>Auxiliary booster, with detonator.<br>Boosters.<br>Burster, with detonator.<br>Depth charge pistol, with detonator and with or without booster.<br>Detonating fuzes, Class A.<br>Fuze:<br>Auxiliary detonating.<br>Base detonating (for all calibers).<br>Bomb nose.<br>Bomb tail with booster.<br>Hydrostatic bomb.<br>Hydrostatic bomb tail.<br>Point detonating with booster.<br>Rocket.<br>Fuzes with boosters assembled thereto.<br>Mine, anti-personnel, non-metallic, M14.<br>Mine firing mechanism, C-1. | "Detonating fuzes, Class A". | A | The amount of explosives in single items does not usually exceed one-half pound.<br>It is likely they would explode progressively.<br>Structural damage caused by the pressure generated would probably be limited to the immediate vicinity.<br>Missiles are light and usually fall within 600 feet.<br>These types of ammunition are loaded with explosives that are sensitive to shock and heat.<br>If involved in a fire, it is possible the fire may be controlled or extinguished by flooding or spraying with large amounts of water.<br>Fire-fighting personnel shall take appropriate precautions and not expose themselves unnecessarily. | *Ammunition stowage, special stowage, or portable magazine, which may be stowed in a hold or on deck*<br>This class of ammunition shall not be overstowed with any other cargo or military explosives except Classes III and VIII.<br>For stowage adjacent to other dangerous articles see § 146.29-39. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Gravity roller conveyors not authorized.<br>4. Do not use chute in loading or unloading.<br>5. Trays with sideboards shall be used when loading by mechanical means.<br>6. Packages shall not be stacked on a tray to a height above its sideboards.<br>7. Trays shall not be swung unnecessarily over open hatches or holds containing military explosives or other dangerous cargo.<br>8. Trays shall be hoisted and lowered carefully and deposited without undue shock on a mattress or other shock-absorbing material.<br>9. Packages shall be stowed in the position indicated by their markings.<br>10. The maximum permitted weight per draft when handled by tray with sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. A portable magazine in which this class of ammunition is stowed and hoisted on board a vessel as a unit load shall not exceed 4,000 lbs. plus 10%.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| VII | | | | | | |
| Separate loading shells with other than explosive "D". | Separate loading shell of all calibers, fuzed or unfuzed, except those loaded with explosive "D"; and loaded shell except those loaded with explosive "D", fuzed or unfuzed, not assembled to or packed with cartridge cases; fuzed cluster fragmentation bombs, rocket heads fuzed or unfuzed and less than 200 lbs. gross weight, anti-tank mines, packed with fuzes in same container or box.<br>Includes but is not limited to:<br>Anti-tank mines, packed with fuzes in same container or box.<br>Cluster, fragmentation bomb (with individual bombs fuzed but without cluster fuzed).<br>High explosive anti-tank shell.<br>High explosive shell.<br>Rocket heads fuzed or unfuzed and under 200 lbs. not assembled to or shipped with rocket motors.<br>Wafers of fragmentation bombs (with individual bombs fuzed).<br><br>NOTE: In general, Classes V and VII types of projectiles will be shipped in accordance with the following basic rules: Point fuzed shell with false ogives will be crated. Point fuzed shell without false ogives will have grommets and eyebolt lifting plugs. Base fuzed shell with relatively fragile parts such as false ogives, steel caps, and windshields will be crated. Base fuzed shells without false ogives will not be crated but will have grommets to protect rotating bands. | "Explosive bomb"...<br>"Explosive mine"...<br>"Explosive projectile". | | The principal hazard in transportation will be involvement in fire from sources other than the ammunition itself.<br>Shells or bombs in this class may explode progressively but very likely en masse.<br>Most missiles will fall within 1,800 feet and detonation will result in severe structural damage increasing in severity and range in relation to the amount of high explosives involved. | *Ammunition stowage*<br>This ammunition boxed, unboxed, or palletized units thereof, may be overstowed.<br>Care must be taken not to damage rotating bands of unboxed shells.<br>This class of ammunition when unfuzed and no fuzes packed in container may be stowed with Class X-A.<br>For stowage adjacent to other dangerous articles see §146.29-59. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Bare projectiles (shells) shall not be rolled except under hand control and on a level surface without appreciable incline.<br>5. Protect rotating bands from damage. Avoid injury to or removal of paint or grease from bourrelet.<br>6. When handling items packed in outside containers, cargo handling stevedore gear may be trays, skipboards, pallets or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with removable sides are authorized.<br>7. Shell tongs or lifting stud and eye are authorized. Wire slings of a design approved by the Captain of the Port may be used.<br>8. Cargo nets without trays, skipboards, pallets, or pieplates are not permitted.<br>9. The maximum permitted weight per draft when handled by tray, skipboard, pallet, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>10. Single shells weighing in excess of 2,201 lbs. must be loaded or unloaded one at a time.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |
| VIII | | | | | | |
| AT mine fuzes (chemical), etc.<br>Blasting caps.<br>Detonators. | Blasting caps of all types; detonators; grenade fuzes, detonating type; fuzes, anti-tank mine (chemical).<br>Includes but is not limited to:<br>Blasting caps.<br>Blasting caps with safety fuze.<br>Destructor, explosive, M10 and MK2 Mod 0.<br>Detonating grenade fuzes.<br>Detonators, all types.<br>Detonators, torpedo.<br>Electric blasting caps.<br>Fuzes, AT mine (chemical).<br>Percussion elements (Army).<br>Primers, electric.<br>Priming assembly for demolition outfit MK104. | "Blasting caps"....<br>"Blasting caps with safety fuze."<br>"Boosters (explosive)".<br>"Detonating fuzes, Class A".<br>"Electric blasting caps".<br>"Precussion caps"....<br>"Percussion fuzes"...<br>"Time fuzes"..... | (*)<br>(*)<br>A<br>A<br>(*)<br>C<br>C<br>C<br>*Class A (more than 1000). Class C (1000 or less). | The two primary hazards in the transportation of these devices are shock and involvement in fire.<br>A collateral hazard is the effect of the detonating of these articles upon other explosives or ammunition stowed in proximity to such articles.<br>All of this class ammunition in a unit stowage may explode at one time, but as the total amount of explosives involved is limited structural damage would not tend to be great.<br>Light missiles having limited range would be formed. | *Magazine stowage "A", special stowage, or portable magazine, which may be stowed in a hold or on deck.*<br>The location of magazines is restricted to a hold or compartment in which no other explosives or ammunition (except Classes I, III, and VI) are stowed.<br>Shall not be stowed within 8 feet of the vessel's side.<br>This class of ammunition shall not be overstowed with any other cargo.<br>For detail of stowage see § 146.-29-93.<br>For stowage with other dangerous articles see § 146.29-59. | Ammunition of Class VIII constitutes a distinct class of ammunition when not assembled in projectiles, bombs, or other ammunition. These types of ammunition are loaded with explosives that are sensitive to shock. The handling and stowage provisions of these regulations give consideration to the probable effect accidental detonation of these devices may have upon other ammunition or explosives stowed within the vessel.<br>1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Gravity roller conveyors are not authorized.<br>4. Do not use chute in loading or unloading.<br>5. Trays with sideboards shall be used when loading by mechanical means.<br>6. Packages shall not be stacked on a tray to a height above its sideboards.<br>7. Trays shall not be swung unnecessarily over open hatches or holds containing military explosives or other dangerous articles.<br>8. Trays shall be hoisted and lowered carefully and deposited without undue shock on a mattress or other shock absorbing material.<br>9. Packages shall be stowed in the position indicated by their markings.<br>10. The maximum permitted weight per draft when handled by tray with sideboards shall not exceed 1,000 lbs. plus 20%.<br>11. Drafts consisting of one or more palletized units shall not exceed 2,400 lbs. plus 10%.<br>12. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>13. A portable magazine in which this class of ammunition is stowed and hoisted on board a vessel as a unit load shall not exceed 2,400 lbs. plus 10%.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| IX-A | | | | | | |
| Explosives in bulk such as: Black powder. Smokeless powder for small-arms, etc. | Black powder in bulk, ballistite for small-arms, smokeless powder for small-arms, black blasting powder, flash powder and powder having similar hazard characteristics to those named:<br>Includes but is not limited to:<br>Ballistite for small-arms.<br>Black blasting powder.<br>Black fire powder.<br>Black pellet powder.<br>Black powder.<br>Black powder and magnesium mixtures.<br>Black powder, unglazed.<br>Black rifle powder.<br>Black shell powder.<br>Bull's eye powder #2.<br>Cannon powder.<br>Charges, Lyle gun.<br>Charges, saluting.<br>Charges, spotting, black powder, M1A1, M3, M4.<br>Depth charge impulse charges.<br>E. C. blank fire powder.<br>Empty powder bags with black powder igniters.<br>FF black powder.<br>Firecracker, M80.<br>FFFG black powder.<br>Flash cartridges over 72 grains.<br>Flash powder sheets inner unit over 2 ounces.<br>Flash reducer (black powder with potassium sulfate).<br>Flash sheets in bulk.<br>Flashlight powder in bulk.<br>High vel #65.<br>Igniter pads.<br>IMR #1885.<br>IMR #4198.<br>IMR #4570.<br>Low blasting explosives.<br>Pistol powder #5.<br>Pyrotechnic mixture, in excess of 72 grains.<br>Rifle powder.<br>Simulator:<br>Boobytrap, flash, illuminating, whistling, in excess of 72 grains.<br>Bootytrap, whistling, M114.<br>Gunflash, M189.<br>Projectile, air burst.<br>Projectile, ground burst M116.<br>Smoke puff charge.<br>Smokeless powder for small-arms.<br>Sodium nitrate black powder.<br>Spherehexagonal black powder.<br>Sporting powder.<br>Sulfurless black powder.<br>Torpedo impulse charges. | "Black powder"<br>"Empty powder bags with black powder igniters."<br>"High explosives"<br>"Low explosives"<br>"Propellant explosives, Class A".<br>"Propellant explosives, Class B". | A<br>C<br><br>A<br>A<br>A<br><br>B | Group IX-A explosives constitute a group having relatively similar hazard characteristics which principally consists of being very susceptible to ignition by spark or friction. They burn with explosive violence and under even slight confinement are likely to explode en masse. They are adversely affected by high temperature. Powder dust is especially hazardous. | *Magazine storage "A"*<br>When Class I ammunition is stowed in the same hold or magazine with this Class the two stowages must be separated by a partition bulkhead or type "A" dunnage floor.<br>Shall not be overstowed with any other kind of cargo.<br>For stowage with other dangerous articles see § 146.29-59.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Packages shall be handled in such a manner as to insure that no spark or friction will occur.<br>4. Observe packages or containers for evidence of sifting or inability to retain contents and reject any showing such signs.<br>5. In event a package is damaged and powder is spilled, immediately stop operations and sweep up any loose powder.<br>6. Remove damaged container and residue of powder to a safe location.<br>7. Gravity roller conveyor not authorized.<br>8. Drums and kegs shall be stowed on end with bungs up. Metal cans shall be stowed with filling openings up. Packages or containers shall be stowed in the position indicated by their markings.<br>9. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>10. Cargo nets without trays, skipboards, pallets, or pieplates are not permitted.<br>11. The maximum permitted weight per draft when handled by tray, skipboard, pallet, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>12. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>13. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| IX-B | | | | | | |
| High explosives such as: Demolition blocks, etc. Dynamite, TNT. | High explosives in bulk, items of high explosive such as shaped charges for demolition or other purposes, and powder in bulk, possessing the characteristics of being likely to detonate en masse.<br>Includes but is not limited to:<br>Amatex.<br>Amatol.<br>Ammonite.<br>Ammonium picrate.<br>Ammonol.<br>Anchor charges.<br>Aqueous smakes.<br>A. S. A. pellets.<br>Atlas amodyn.<br>Balls of cellulose nitrate.<br>Barsnol.<br>Beehive charges.<br>Blasting gelatin.<br>British beehive.<br>C. E. pellet.<br>Charge, demolition, block.<br>Charge, demolition, chain.<br>Chlorate explosives, dry.<br>Chlorate propellants.<br>Clams, M3.<br>Composition "A," etc.<br>Composition "B," "B2," etc.<br>Composition "C," "C2," etc.<br>Cratering charges.<br>Cyclonite, RDX.<br>Cyclotol.<br>Demolition blocks.<br>Depth bomb explosives.<br>Dinitrotoluene. (DNT)<br>Dynamite.<br>Ednatol.<br>Explosive "D." (Ammonium picrate.)<br>Explosive gelatin.<br>808 plastic.<br>Gelatin dynamite.<br>Gelignite.<br>General wade.<br>Grenite.<br>Guncotton.<br>HBX.<br>Haleite.<br>Hayrick charges.<br>Hercomite.<br>Hexogen.<br>Limpet.<br>Minol.<br>Negative cotton.<br>Nitrocellulose, dry.<br>Nitroguanidine, dry.<br>Nitrostarch, dry.<br>Nitrourea.<br>Nobel's ammonal (704B).<br>Nobel's explosives (808).<br>PEP 1, 2, and 3.<br>Pentolite.<br>Picrates, dry.<br>Picric acid, dry or wet.<br>Plastic explosives.<br>PTX, 1 and 2.<br>RDX.<br>Reddy Fox.<br>Seachest demolition blocks.<br>Shaped charges.<br>Shellite.<br>Snake demolition explosive charges.<br>Supplementary charges.<br>Tetryl.<br>Tetrytol.<br>TNT.<br>TNX.<br>Torpex. | "High explosives"... | A | High explosives in bulk, and demolition blocks have relatively similar hazard characteristics.<br>They may be considered stable in stowage.<br>Can be ignited by spark or friction and detonated by shock.<br>When ignited will burn vigorously.<br>Bulk shipments in amounts likely to be found on board vessels would, if ignited be very likely to detonate. | *Ammunition stowage*<br>Shall not be stowed in the same hold or compartment with other permitted ammunition, or explosives, unless the two are separated by a partition bulkhead or a Type "A" dunnage floor.<br>Shall not be overstowed with any other kind of cargo.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>Shall not be loaded at an ammunition loading pier.<br>Military dynamite when transported on a commercial vessel simultaneously with commercial dynamite, and no other military explosives are on board, shall be shipped under those requirements set forth for the shipment of commercial dynamite. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble or walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Packages shall be handled in such a manner as to insure that no spark or friction will occur.<br>5. Observe packages or containers for evidence of sifting or inability to retain contents and reject any showing such signs.<br>6. In event a package is damaged and powder is spilled, immediately stop operations and sweep up loose powder.<br>7. Remove damaged containers and residue of powder to a safe location.<br>8. Gravity roller conveyors not authorized.<br>9. Packages or containers shall be stowed in the position indicated by their markings.<br>10. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>11. Cargo nets without trays, skipboards, pallets, or pieplates are not permitted.<br>12. The maximum permitted weight per draft when handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>13. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>14. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent the upper tier or tiers from shifting or falling from the draft.<br>15. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| IX–B—Con. | | | | | | |
| High explosives such as: Demolition blocks, etc. Dynamite. TNT. Continued. | High explosives in bulk, etc.—Continued<br>Includes but is not limited to:<br>Tridite.<br>Trilite.<br>Trimonite.<br>Trinitroaniline.<br>Trinitrobenzene.<br>Trinitrocresol.<br>Trinitrophenylmethylnitramine.<br>Trinitroresorcinol.<br>Trinitronal.<br>Trinitrotoluene.<br>Trinitroxylene.<br>Trinitroxylol.<br>Triton blocks.<br>Trojan powder.<br>Urea nitrate, dry or wet. | | | | | |
| IX–C | | | | | | |
| Initiating and priming explosives in bulk. | Initiating and priming explosives when shipped in bulk.<br>Includes but is not limited to:<br>Glazodinitrophenol (DDNP, DINOL).<br>Guanyl-nitrosamino-guanilidene-hydrazine.<br>Guanyl-nitrosamino-guanyl-tetrazene.<br>Lead azide.<br>Lead styphnate.<br>Lead trinitroresorcinate.<br>Mercury fulminate.<br>Nitro mannite.<br>Nitrosoguanidine.<br>Pentaerythrite tetranitrate.<br>PETN.<br>Tetrazene.<br><br>NOTE: Bulk priming or initiating explosives in dry condition are not permitted to be transported on board vessels. | "Initiating explosive" | A | Bulk initiating and priming explosives constitute a distinct class of explosives.<br>They are extremely sensitive to shock.<br>The only permitted packing for transportation in bulk consists of a sift proof cotton duck, rubber or rubberized cloth bag in a metal barrel or drum or wooden barrel or keg and wet with 20 to 40% of water or water alcohol mixture.<br>Mercury fulminate and lead azide also have 3" of sawdust saturated with water between the bag and the outer container. | *Magazine stowage "A", special stowage or portable magazine stowage.*<br><br>Shall not be stowed in the same magazine with other ammunition or explosives.<br>When tiering containers of explosives of this class in a magazine, have each tier floored off with a type "A" dunnage floor.<br>The location of a magazine is restricted to a hold or compartment in which no other military ammunition (except Class D) is stowed.<br>Shall not be stowed within 8 feet of vessel's side.<br>This class of ammunition shall not be overstowed with any other cargo.<br>For stowage adjacent to other dangerous articles see §146.29-59.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Do not roll barrels on their bilges.<br>5. Gravity roller conveyer not authorized.<br>6. Barrels or drums contain 20 to 40% water or water alcohol mixture.<br>7. Observe barrels, drums or containers for evidence of leakage or inability to retain contents and reject any showing such signs.<br>8. In event a container is damaged immediately stop operations and carefully remove damaged container to a safe location.<br>9. Drums and kegs shall be stowed on end with bungs up. Containers shall be stowed in the position indicated by their markings.<br>10. Trays with sideboards shall be used when handling by mechanical means.<br>11. Containers shall not be stacked on a tray to a height above its sideboards.<br>12. The maximum permitted weight per draft when handled by tray fitted with sideboards shall not exceed 1,000 lbs. plus 10%.<br>13. Trays shall be hoisted and lowered carefully and deposited without undue shock on a mattress or other shock absorbing material.<br>14. The limiting weights noted above are for a 5 ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| X-A | | | | | | |
| Explosive bombs, mines, torpedoes, etc. | Bombs, bomb clusters, mines, depth charges, warheads (all unfuzed), rocket heads (fuzed or unfuzed and without motors 200 lbs. or more gross weight); projector charges (unfuzed and without motors) torpedo hangalore (unfuzed); and other unfuzed ammunition filled with relatively large amounts of HE; all possessing a similar hazard characteristic of en masse detonation.<br>Includes but is not limited to:<br>Activator—without detonator.<br>Bombs:<br>Armor-piercing.<br>Demolition.<br>Depth.<br>Depth charge.<br>Fragmentation.<br>G. P.<br>Photoflash.<br>S. A. P.<br>Shallow water depth.<br>Boosters—without detonators.<br>Boosters, adapter—without detonators.<br>Burster—without detonator.<br>Jato units, Class A.<br>Jet thrust units (Jato), Class A.<br>Mines:<br>Aerial.<br>Aircraft.<br>Anti-personnel (unfuzed).<br>Anti-personnel fragmentation (unfuzed).<br>Anti-tank (unfuzed).<br>Anti-tank non-metallic (unfuzed).<br>Grenade.<br>High explosive.<br>Land.<br>Projector charges.<br>Rocket heads (fuzed or unfuzed and without motors 200 lbs. or more gross weight).<br>Torpedo hangalore.<br>Torpedo warheads. | "Booster (explosive)."<br>"Burster (explosive)."<br>"Explosive bombs".<br>"Explosive mines".<br>"Explosive projectiles."<br>"Explosive torpedoes."<br>"Jet thrust units (JATO) Class A." | A<br>A<br>A<br>A<br>A<br>A | Fire and shock are the primary hazards to this class of ammunition. They are particularly dangerous because of their tendency to detonate en masse if involved in a fire or subjected to shock.<br>Detonation will result in severe structural damage, increasing in severity and range in relation to the amount of high explosives involved.<br>All high explosive loaded items in this class having thin container walls are relatively easily ruptured or dented.<br>Denting of the container walls by impacts, though not sufficiently severe to rupture them has occasionally resulted in partial or complete detonation, and each kind of ammunition is said to possess "container-dent sensitivity."<br>A certain degree of confinement combined with local heating of the contained explosive by a particular kind of impact apparently causes instantaneous explosive action. But whatever may be the actual mechanics of this phenomenon; the kinds of impacts known to have caused explosion of these items include such impacts as dropping on or striking against a rounded corner, similar to a hatch coaming, impact of one bomb against another, or being struck by handling and transportation equipment.<br>In placing or removing dunnage, an accidental or misdirected blow from a sledge hammer, pinch bar or other hand tool may cause such explosions. The impact need not be violent. A short drop of only 2 feet caused a low order detonation of a depth bomb.<br>Warheads, depth bombs, depth charges, Naval mines, and like items are in the "Container-dent sensitivity" category.<br>All of the foregoing also apply in substantial effect to containers of this class of ammunition that are not thin walled. | *Ammunition stowage*<br>Items in this class having thin container walls and said to possess "container-dent sensitivity" shall not be tiered one layer on top of another unless they are boxed crated or dunnaged in such a manner that they are properly protected to withstand the superimposed weight.<br>Items having thin walls and possessing "container-dent sensitivity" may be overstowed only with very light cargo such as bomb fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>Items of this class having thick walled containers may be tiered one layer on top of another provided they are so stowed, dunnaged, blocked and/or braced as to prevent movement that is likely to damage the ammunition, the vessel or other cargo.<br>Shall not be overstowed with inert permitted cargo having lesser bearing surface or greater unit weight than any item stowed below.<br>Class X-A items shall not be stowed in the same hold or compartment with permitted military explosives other than this class or Class X-B separated by a partition bulkhead or a type "A" dunnage floor.<br>Except for wooden barrels or boxes and fiberboard containers, no flammable or combustible material as cargo shall be stowed in a hold or compartment in which this class of ammunition is stowed.<br>When photoflash bombs are stowed with any other military explosive, including items of this class the two stowages must be separated by a partition bulkhead or a type "A" dunnage floor.<br>For stowage adjacent to other dangerous articles see § 146.29-30.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, slide, tumble, walk or otherwise subject these articles to shock.<br>3. Do not use chute in loading or unloading.<br>4. Cargo nets shall not be used except to enclose a pallet, skipboard, or tray, or as a preventer or save-all.<br>5. Bombs, not crated or boxed, without external fittings or with external fittings protected by lug guards, may be rolled only under continuous hand control on level surfaces or on non-powered roller conveyors, provided these surfaces or conveyors are relatively level and free from projections.<br>6. Unboxed or uncrated warheads, depth bombs, depth charges, or other thin walled items shall not be tiered in "making up" drafts (hoists).<br>7. No "cant" or barrel hooks shall be used on this class of ammunition.<br>8. Depth charges and rocket heads that are not boxed or crated shall be loaded by use of pallet, skipboard or tray fitted with cargo net or sideboards.<br>9. Bombs, except depth bombs, may be loaded by use of wire rope slings, or by pallet, skipboard or tray fitted with cargo net or sideboards.<br>10. Depth bombs shall be loaded only by using pallet, skipboard, or tray fitted with cargo net or sideboards. (See § 146.29-29.)<br>11. Slings for use in hoisting this class of ammunition must be approved for use by the Captain of the Port.<br>12. Single slings made up in multiple assembly with spreader may be used in handling bombs that do not exceed 1,301 pounds each. Two-legged slings shall be used in handling bombs of more than 1,301 pounds each.<br>*Table of Limiting Loads*<br>(Applicable when handling bombs by sling method)<br>Weight of individual bomb or cluster: — *Maximum units in one draft*<br>1 lb. to 250 lbs.[1] — 8<br>276 lbs. to 500 lbs.[1] — 6<br>551 lbs. to 1,000 lbs.[1] — 4<br>1,101 lbs. to 2,000 lbs.[1] — 2<br>Over 2,200 lbs — 1<br>[1] A tolerance of 10% per unit is allowed. (For example, a bomb weighing 550 lbs. may be considered as coming within the 500 lb. group.)<br>13. Naval mines, uncrated and fitted with lifting eye shall be loaded by using wire rope and shackle.<br>14. Naval mines, uncrated and not fitted with lifting eye may be loaded by use of wire rope slings or trays fitted with sideboards.<br>15. The following items when boxed or crated shall be loaded by the use of pallet, skipboard or tray fitted with cargo net or sideboards; photoflash bombs, antitank mines, antipersonnel mines, naval mines, warheads, depth charges, torpedo hangalore, projector charges and rocket heads.<br>16. Warheads, crated in such a manner that the nose lifting ring is exposed may be loaded by means of said ring.<br>17. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pie-plate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>18. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>19. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>20. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| X-B | | | | | | |
| Explosive bombs, mines, torpedoes, etc., packed with fuzes in integral package. (Fuzes will not detonate items with which packaged nor adjacent packages.) | Bombs, bomb clusters, mines, depth charges warheads (all unfuzed), projector charges (unfuzed and without motors), torpedo bangalore (unfuzed), and other unfuzed ammunition filled with relatively large amounts of HE; all possessing a similar hazard characteristic of en masse detonation. The fuze is packed integral with the item, but the fuze will not detonate the item with which packaged nor adjacent packages.<br>Includes but is not limited to:<br>Bombs:<br>Armor-piercing.<br>Demolition.<br>Depth.<br>Depth charge.<br>Fragmentation.<br>G. P.<br>Photoflash.<br>S. A. P.<br>Shallow water depth.<br>Mines:<br>Aerial.<br>Aircraft.<br>Anti-personnel (unfuzed).<br>Anti-personnel fragmentation (unfuzed).<br>Anti-tank (unfuzed).<br>Anti-tank non-metallic (unfuzed).<br>Grenade.<br>High explosive.<br>Land.<br>Projector charges.<br>Torpedo bangalore.<br>Torpedo warheads. | "Explosive bombs".<br>"Explosive mines".<br>"Explosive projectiles."<br>"Explosive torpedoes." | A<br>A<br>A | Fire and shock are the primary hazards to this class of ammunition. They are particularly dangerous because of their tendency to detonate en masse if involved in a fire or subjected to shock.<br>Detonation will result in severe structural damage, increasing in severity and range in relation to the amount of high explosives involved.<br>All high explosive loaded items in this class having thin container walls are relatively easily ruptured or dented.<br>Denting of the container walls by impacts, though not sufficiently severe to rupture them has occasionally resulted in partial or complete detonation, and such kind of ammunition is said to possess "container-dent sensitivity."<br>A certain degree of confinement combined with local heating of the contained explosive by a particular kind of impact apparently causes instantaneous explosive action. But whatever may be the actual mechanics of this phenomenon, the kinds of impacts known to have caused explosion of these items include such impacts as dropping on or striking against a rounded corner, similar to a hatch coaming, impact of one bomb against another, or being struck by handling and transportation equipment.<br>In placing or removing dunnage, an accidental or misdirected blow from a sledge hammer, pinch bar or other hand tool may cause such explosions. The impact need not be violent. A short drop of only 2 feet caused a low order detonation of a depth bomb.<br>Warheads, depth bombs, depth charges, Naval mines, and like items are in the "Container-dent sensitivity" category.<br>All of the foregoing also apply in substantial effect to containers of this class of ammunition that are not thin walled. | *Ammunition stowage*<br>Items in this class having thin container walls and said to possess "container-dent sensitivity" shall not be tiered one layer on top of another unless they are boxed, crated or dunnaged in such a manner that they are properly protected to withstand the superimposed weight.<br>Items having thin walls and possessing "container-dent sensitivity" may be overstowed only with very light cargo such as bomb fin assemblies, empty water fillable practice bombs and empty auxiliary gas tanks.<br>Items of this class having thick walled containers may be tiered one layer on top of another provided they are so stowed, dunnaged, blocked and/or braced as to prevent movement that is likely to damage the ammunition, the vessel or other cargo.<br>Shall not be overstowed with inert permitted cargo having lesser bearing surface or greater unit weight than any item stowed below.<br>Class X-B items shall not be stowed in the same hold or compartment with permitted military explosives other than this class or Class X-A unless the two are separated by a partition bulkhead or a type "A" dunnage floor.<br>Except for wooden barrels or boxes and fiberboard containers no flammable or combustible material as cargo or containers of same shall be stowed in a hold in which this class of ammunition is stowed.<br>When photoflash bombs are stowed with any other military explosive, including items of this class, the two stowages must be separated by a partition bulkhead or a type "A" dunnage floor.<br>For stowage adjacent to other dangerous articles see § 146.29-39.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, slide, tumble, walk or otherwise subject these articles to shock.<br>3. Do not use chute in loading or unloading.<br>4. Cargo nets shall not be used except to enclose a pallet, skipboard, or tray, or as a preventer or save-all.<br>5. Bombs, not crated or boxed, without external fittings or with external fittings protected by lug guards, may be rolled only under continuous hand control on level surfaces or on non-powered roller conveyors, provided these surface or conveyors are relatively level and free from projections.<br>6. Unboxed or uncrated warheads, depth bombs, depth charges, or other thin walled items shall not be tiered in "making up" drafts (hoists).<br>7. No "cant" or barrel hooks shall be used on this class of ammunition.<br>8. Depth charges and rocket heads that are not boxed or crated shall be loaded by use of pallet, skipboard or tray fitted with cargo net or sideboards.<br>9. Bombs, except depth bombs, may be loaded by use of wire rope slings, or by pallet, skipboard or tray fitted with cargo net or sideboards.<br>10. Depth bombs shall be loaded only by using pallet, skipboard, or tray fitted with cargo net or sideboards. (See § 146.29-39.)<br>11. Slings for use in hoisting this class of ammunition must be approved for use by the Captain of the Port.<br>12. Single slings made up in multiple assembly with spreader may be used in handling bombs that do not exceed 1,101 pounds each. Two legged slings shall be used in handling bombs of more than 1,101 pounds each. (See table of Limiting Loads, Class X-A).<br>13. Naval mines, uncrated and fitted with lifting eye shall be loaded by using wire rope and shackle.<br>14. Naval mines, uncrated and not fitted with lifting eye may be loaded by use of wire rope slings or trays fitted with sideboards.<br>15. The following items when boxed or crated shall be loaded by the use of pallet, skipboard or tray fitted with cargo net or sideboards; photoflash bombs, antitank mines, antipersonnel mines, naval mines, warheads, depth charges, torpedo bangalore, projector charges and rocket heads.<br>16. Warheads, crated in such a manner that the nose lifting ring is exposed may be loaded by means of said ring.<br>17. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>18. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>19. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>20. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| X-C<br>Guided missiles, solid propellant motors, packed with HE warheads. | Completely assembled missiles or rockets with solid fuel motors. | "Rocket ammunition with explosive projectiles." | A | Fire and shock are the primary hazards to this class of ammunition. They are particularly dangerous because of (1) their tendency to detonate en masse if involved in a fire or subjected to shock, and (2) the combustibility and toxicity of the fuel if involved in a fire.<br>All high explosive loaded items of this class having thin container walls are relatively easily ruptured or dented.<br>Denting of the container walls by impact, though not sufficiently severe to rupture them may result in a partial or complete detonation.<br>A certain degree of confinement combined with local heating of the contained explosive by a particular kind of impact causes instantaneous explosive action. These kinds of impacts are, striking against a rounded corner similar to a hatch coaming, impact of one missile against another, or being struck by handling or transportation equipment.<br>Toxicity by inhalation of fumes is increased when fuels are ignited as the intensity of poisonous fumes is increased.<br>Care should be exercised to minimize the exposure of personnel to the toxic effects of these mixtures and to prevent damage to the container with resulting leakage or spillage. | Class X-C items shall not be stowed in the same hold or compartment with permitted military explosives other than this class or Classes IV-A, IV-B, and VII unless the two are separated by a partition bulkhead or a type "A" damage floor.<br>Except for wooden boxes or barrels and fiberboard containers, no flammable or combustible material shall be stowed in a hold or compartment in which this class of ammunition is stowed.<br>Shall not be overstowed with any other kind of cargo.<br>May be stowed on deck protected, except on the square of a hatch.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>Shall not be loaded at an ammunition loading pier. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, slide, tumble, walk or otherwise subject these articles to shock.<br>3. Do not use chute in loading or unloading.<br>4. Cargo nets shall not be used except to enclose a pallet, skipboard, or tray, or as a preventor or save-all.<br>5. Missiles, not crated or boxed, without external fittings or with external fittings protected by bar guards, may be rolled only under continuous hand control on level surfaces or on non-powered roller conveyors, provided these surfaces or conveyors are relatively level and free from projections.<br>6. Unboxed or uncrated missiles shall not be tiered in "making up" drafts (hoists).<br>7. No "eang" or barrel hooks shall be used on this class of ammunition.<br>8. May be loaded by use of wire rope slings, or by pallet, skipboard or tray fitted with cargo net or sideboards.<br>9. Slings for use in hoisting this class of ammunition must be approved for use by the Captain of the Port.<br>10. Single slings made up in multiple assembly with spreader may be used in handling missiles that do not exceed 1,101 pounds each. Two legged slings shall be used in handling missiles of more than 1,101 pounds each. (See table of Limiting Loads, Class X-A).<br>11. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>12. Drafts consisting of one or more palletized units shall not exceed 4,900 lbs. plus 10%.<br>13. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| X-D | | | | | | |
| Guided missiles, liquid propellant motors, packed with HE warheads. | Completely assembled missiles or rockets with liquid fuel motors. | "Rocket ammunition with explosive projectiles." | A | Fire and shock are the primary hazards to this class of ammunition. They are particularly dangerous because of (1) their tendency to detonate en masse if involved in a fire or subjected to shock, and (2) the combustibility and toxicity of the fuel if involved in a fire.<br>All high explosive loaded items of this class having thin container walls are relatively easily ruptured or dented.<br>Denting of the container walls by impact, though not sufficiently severe to rupture them may result in a partial or complete detonation.<br>A certain degree of confinement combined with local heating of the contained explosive by a particular kind of impact causes instantaneous explosive action. These kinds of impacts are, striking against a rounded corner, similar to a hatch coaming, impact of one missile against another, or being struck by handling or transportation equipment.<br>Toxicity by inhalation of fumes is increased when fuels are ignited as the intensity of poisonous fumes is increased.<br>Care should be exercised to minimize the exposure of personnel to the toxic effects of these mixtures and to prevent damage to the container with resulting leakage or spillage. | Class X-D items shall not be stowed in the same hold or compartment with other military explosives, other dangerous cargo, or regulated items.<br>Shall be stowed only in a lower hold, or "On deck protected," not on the square of a hatch.<br>Shall not be overstowed.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>Shall not be loaded at an ammunition loading pier.<br>Must be stowed so that superstructure intervenes between it and other items that require "On deck" stowage.<br>Preferred "On deck" stowage is aft. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, slide, tumble, walk or otherwise subject these articles to shock.<br>3. Do not use chute in loading or unloading.<br>4. Cargo nets shall not be used except to enclose a pallet, skipboard, or tray, or as a preventor or save-all.<br>5. Missiles, not crated or boxed, without external fittings or with external fittings protected by lug guards, may be rolled only under continuous hand control on level surfaces or on non-powered roller conveyors, provided these surfaces or conveyors are relatively level and free from projections.<br>6. Unboxed or uncrated missiles shall not be tiered in "making up" drafts (hoists).<br>7. No "cant" or barrel hooks shall be used on this class of ammunition.<br>8. May be loaded by use of wire rope slings, or by pallet, skipboard or tray fitted with cargo net or sideboards.<br>9. Slings for use in hoisting this class of ammunition must be approved for use by the Captain of the Port.<br>10. Single slings made up in multiple assembly with spreader may be used in handling missiles that do not exceed 1,101 pounds each. Two legged slings shall be used in handling missiles of more than 1,101 pounds each. (See table of Limiting Loads, Class X-A).<br>11. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pie-plate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>12. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>13. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| **X-E** | | | | | | |
| Guided missiles, with liquid auxiliary power units, solid propellant motors, with HE warheads. | Completely assembled missiles or rockets with solid propellant motors and liquid auxiliary power units. | "Rocket ammunition with explosive projectiles." | A | Fire and shock are the primary hazards to this class of ammunition. They are particularly dangerous because of (1) their tendency to detonate en masse if involved in a fire or subjected to shock, and (2) the combustibility and toxicity of the fuel if involved in a fire.<br>All high explosive loaded items of this class having thin container walls are relatively easily ruptured or dented.<br>Denting of the container walls by impact, though not sufficiently severe to rupture them may result in a partial or complete detonation.<br>A certain degree of confinement combined with local heating of the contained explosive by a particular kind of impact causes instantaneous explosive action. These kinds of impacts are, striking against a rounded corner similar to a hatch coaming, impact of one missile against another, or being struck by handling or transportation equipment.<br>Toxicity by inhalation of fumes is increased when fuels are ignited as the intensity of poisonous fumes is increased.<br>Care should be exercised to minimize the exposure of personnel to the toxic effects of these mixtures and to prevent damage to the container with resulting leakage or spillage. | Shall be stowed "On deck protected" only, not on square of hatch.<br>Shall not be overstowed with any kind of cargo.<br>Shall not be loaded at an ammunition loading pier.<br>Must be stowed so that superstructure intervenes between it and other items that require "On deck" stowage.<br>Preferred "On deck" stowage is aft. | 1. Handle by hand or mechanical means.<br>2. Do not drop, drag, slide, tumble, walk or otherwise subject these articles to shock.<br>3. Do not use chute in loading or unloading.<br>4. Cargo nets shall not be used except to enclose a pallet, shipboard, or tray, or as a preventor or save-all.<br>5. Missiles, not crated or boxed, without external fittings or with external fittings protected by lug guards, may be rolled only under continuous hand control on level surfaces or on non-powered roller conveyors, provided these surfaces or conveyors are relatively level and free from projections.<br>6. Unboxed or uncrated missiles shall not be tiered in "making up" drafts (hoists).<br>7. No "easy" or barrel hooks shall be used on this class of ammunition.<br>8. May be loaded by use of wire rope slings, or by pallet, skipboard or tray fitted with cargo net or sideboards.<br>9. Slings for use in hoisting this class of ammunition must be approved for use by the Captain of the Port.<br>10. Single slings made up in multiple assembly with spreader may be used in handling missiles that do not exceed 1,101 pounds each. Two legged slings shall be used in handling missiles of more than 1,101 pounds each. (See table of Limiting Loads, Class X-A).<br>11. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pie-plate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>12. Drafts consisting of one or more palletized units shall not exceed 4,800 lbs. plus 10%.<br>13. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>14. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| XI-A | | | | | | |
| Chemical ammunition, lethal. | Chemical ammunition filled with lethal gases such as mustard gas (H), lewisite gas (L), nerve gas (GB), BW agents, phosgene gas (CG), hydrocyanic acid (AC), nitrogen mustard gas (HN), diphosgene (DP), chlorpicrin gas (PS), cyanogen chloride (CK) when shipped assembled with or without their ignition elements, bursting charges or fuzes.<br>When these substances are shipped in drums, barrels, cylinders or other authorized containers they shall be classified Class A, Poison Gas.<br>When these substances are shipped in authorized ICC specification containers or Chemical Corps specification containers of integrity equal to ICC containers (including shells, bombs and rockets without ignition elements, bursting charges or fuzes) they may be handled and stowed either as Class A poison gas or chemical ammunition Class XI-A.<br>Includes but is not limited to the following items when filled with any of the above agents:<br>Ammunition for guns with gas projectile (shell).<br>Bombs, chemical.<br>Bombs, clusters, chemical.<br>Frangible grenade.<br>Hand grenade.<br>Howitzer shell.<br>Land mine.<br>Livens projector shell.<br>Mortar shell.<br>Rockets, chemical.<br>Separate loading projectile.<br><br>NOTE: The U. S. Army Chemical Corps or U. S. Navy, when shipping chemical ammunition, mark such ammunition and the containers thereof, in general, as follows:<br>(a) By the use of color bands painted upon the ammunition the containers thereof; by letter symbol to indicate the particular kind of chemical therein and the word "Gas" stenciled upon the ammunition of the containers thereof.<br>(b) Persistent gases are marked with two (2) green bands. Nonpersistent gases with one (1) green band.<br>(c) The word "Gas" will be stenciled upon shells and upon the outside container of shells, grenades, bombs, canlles, etc., the stenciling to be of the same color as the designating band.<br>(d) The bodies of all ammunition containing gas will be painted gray. | "Ammunition for cannon with gas projectile."<br>"Explosive bomb"<br>"Explosive projectile."<br>"Explosive mine"<br>"Hand grenade"<br>"Rifle grenade"<br>"Rocket ammunition with gas projectile."<br>Shipping name of item when shipped as Class A poison. | A<br>A<br>A<br>A<br>A<br>A<br>A<br>Poison A | This type of ammunition or bulk shipments of these substances in containers other than ammunition, represents a particular and special hazard.<br>Minute quantities of either liquid or vapor can cause serious burns and death.<br>The liquid or vapor will contaminate everything with which it comes in contact, cause serious and painful burns to exposed portions of the body and the eyes, and attack the respiratory system usually with fatal results.<br>Nerve gas is highly toxic, quick acting nerve poison. It can be absorbed through any body surface including the respiratory tract, skin, eyes, and gastro-intestinal tract. The rapidity of action of nerve gas and absence of identifying symptoms may incapacitate a person so rapidly that he may be unable to take individual protective measures. | *Chemical ammunition stowage, special stowage, or portable magazine*<br><br>Bulk shipments of chemical agents in ICC cylinders, tanks or Chemical Corps specification containers of integrity equal to ICC containers may be stowed in a shelter deck space or in a deck house suitable for such stowage.<br>Chemical ammunition (explosive) shall be stowed in a deep tank, lower hold or between deck, and such stowage shall be effectively sealed off to prevent the escape of any leakage which may take place. (See § 146.29-85.)<br>Drums or other authorized ICC or Chemical Corps specification containers filled with Class A poison gas may be stowed in the same hold or compartment with chemical ammunition Class XI-A.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>May be loaded at a temporary location authorized by the Captain of the Port for the specific loading.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | When possible and the amount of such ammunition or containers of these chemical substances warrants, the loading and stowage of chemical ammunition or chemical agents for such should be supervised by a representative of the appropriate Army technical service (Chemical or Ordnance Corps) or Navy Department.<br>1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use cloute in loading or unloading.<br>4. Shall not be rolled except under hand control and on a level surface without appreciable incline.<br>5. Packages shall be braced so as to prevent any movement. Top tiers shall be braced to prevent upward movement.<br>6. Packages or containers shall be stowed in the position indicated by their markings. When not so marked, boxes shall be stowed on the most stable side and arranged in such a manner that the joints between boxes are staggered.<br>7. No packages shall be "cant" stowed.<br>8. Dunnage shall be applied to the sides, ends and tops of the boxes before bracing is applied.<br>9. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with removable sides are authorized.<br>10. Cargo nets without trays, skipboards, pallets or pieplates are not permitted.<br>11. Wire rope slings are permitted when handling unboxed bombs or containers filled with this class of chemical warfare material.<br>12. The maximum permitted weight per draft when handled by tray, skipboard, pallet, or pieplate fitted with cargo net or sideboards shall not exceed 2,806 lbs. plus 10%.<br>13. Single bombs or other unit containers weighing in excess of 2,200 lbs. must be loaded or unloaded one at a time.<br>14. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>15. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>16. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| XI-B | | | | | | |
| Chemical ammunition, nonlethal. | Chemical ammunition filled with non-lethal gases such as Chloracetophenone gas (CN), Chloracetophenone solution (CNB) or (CNS), Brombenzylcyanide (BBC) and Adamsite (DM) when shipped assembled with or without their ignition elements, bursting charges or fuses.<br>When these substances are shipped in drums, barrels, cylinders or other authorized containers, they shall be classified as tear gases or irritating substances, Class C—poisons.<br>When these substances are shipped in authorized ICC specification containers or Chemical Corps containers of integrity equal to ICC containers (including shells, bombs and rockets, without ignition elements, bursting charges or fuses) they may be handled and stowed either as Class C—poisons or as chemical ammunition Class XI-B.<br>Includes but is not limited to the following items when filled with any of the above agents:<br>Ammunition for cannon with gas projectile (shell).<br>Bombs, aircraft.<br>Bombs, aircraft cluster.<br>CN capsules.<br>Gas identification sets.<br>Grenades, hand.<br>Grenades, frangible, hand.<br>Grenades, rifle.<br>Rockets.<br>Shell, Livens projector.<br>Shell, mortar.<br>Tear gas candles.<br>Tear gas pots.<br><br>NOTE: The U. S. Army and Navy when shipping harassing gas ammunition, mark such ammunition and the containers thereof with the word "gas" and Chemical Corps symbol of the gas with one red band. | "Ammunition for cannon with gas projectile."<br>"Explosive bomb"<br>"Explosive projectile."<br>"Hand grenade"<br>"Rifle grenade"<br>"Tear gas candle"<br>"Tear gas grenade"<br>"Rocket ammunition with gas projectile."<br>Shipping name of item when shipped as Class C poison. | A<br><br>A<br>A<br>A<br>Pois. C<br>Pois. C<br>A<br><br>Pois. C | Fire and intolerable vapors. The fire hazard of some of these items is similar to that of smokeless powder. The vapors are rarely lethal as concentrations far below the lethal range are intolerable. Gas mask provides complete protection. | *Chemical ammunition stowage, special stowage, or portable magazine*<br><br>It is important to stow in locations not subject to temperatures above 100° F.<br>Stowage shall be accessible from cargo hatch or other access means to the hold or compartment.<br>Drums or other authorized ICC or Chemical Corps specification containers filled with Class C poison gas may be stowed in the same hold or compartment with chemical ammunition, Class XI-B.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>May be loaded at a temporary location authorized by the Captain of the Port for the specific loading.<br>When given chemical ammunition stowage, see § 146.29-85 for additional requirements. | When possible and the amount of such ammunition or containers of these chemical substances warrants, the loading and stowage of chemical ammunition or chemical agents for such should be supervised by a representative of the appropriate Army technical service (Chemical or Ordnance Corps) or Navy Department.<br>1. Handle by hand or mechanical means.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages to shock.<br>3. Do not use chute in loading or unloading.<br>4. Shall not be rolled except under hand control and on a level surface without appreciable incline.<br>5. Packages shall be braced so as to prevent any movement. Top tiers shall be braced to prevent upward movement.<br>6. Packages or containers shall be stowed in the position indicated by their markings. When not so marked, boxes shall be stowed on the most stable side and arranged in such a manner that the joints between boxes are staggered.<br>7. No packages shall be "cant" stowed.<br>8. Dunnage shall be applied to the sides, ends and tops of the boxes before bracing is applied.<br>9. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with removable sides are authorized.<br>10. Cargo nets without trays, skipboards, pallets or pieplates are not permitted.<br>11. Wire rope slings are permitted when handling unboxed bombs or containers filled with this class of chemical warfare material.<br>12. The maximum permitted weight per draft when handled by tray, skipboard, pallet or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>13. Single bombs or other unit containers weighing in excess of 2,200 lbs. must be loaded or unloaded one at a time.<br>14. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>15. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>16. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| XI-C | | | | | | |
| Fuels in containers for guided missiles and rockets. | Missile fuels are usually non-corrosive, highly combustible mixtures, shipped in drums of aluminum or glass containers, used as fuels for guided missiles or rockets.<br>Includes but is not limited to:<br>Acetonitrile (methyl cyanide).<br>Aluminum borohydride.<br>Anhydrous ammonia.<br>Aniline.<br>Diborane.<br>Diethylene triamine.<br>Diethylene glycol dinitrate, liquid.<br>Dimethyl hydrazine, unsymmetrical.<br>Ethyl alcohol.<br>Furfuryl alcohol.<br>Gasoline (AVGAS).<br>Heptane.<br>Hydrazine.<br>Hydrazine hydrate.<br>Kerosene.<br>Liquid fluorine.<br>Liquid hydrogen.<br>Methyl alcohol.<br>Monoethylaniline.<br>Nitroglycerine, liquid.<br>Nitromethane.<br>Octane.<br>Pentaborane.<br>Pentane.<br>Potassium cupricyanide.<br>Tetranitromethane. | Shipping name of item. | F. G.<br>F. L.<br>F. S.<br>Oxy. M.<br>Nonf. G.<br>Poi. B | The principal hazard is its involvement in a fire since all of the fuels are highly combustible and toxic and under certain conditions will explode.<br>Aniline-furfuryl alcohol mixtures are toxic through inhalation of the fumes or vapors, ingestion, and absorption through the skin. Toxicity by inhalation of fumes is increased when fuels are ignited as the intensity of poisonous fumes is increased. Care should be exercised to minimize the exposure of personnel to the toxic effects of these mixtures and to prevent damage to the containers with resulting leakage or spillage. | This class will not be stowed with any corrosive liquid (acids, etc.), oxidizing agents, or explosives.<br>For stowage adjacent to other dangerous articles see § 146.29-39.<br>May be stowed "On deck" and protected from direct rays of the sun and inclement weather, or may be stowed in a deep tank and such stowage shall be effectively sealed off to prevent the escape of any leakage which may take place. Pertinent parts of § 146.29-85 apply.<br>Compatibility of items within this class shall be in accordance with § 146.29-99, Chart B.<br>Must be stowed so that superstructure intervenes between it and other items that require "On deck" stowage. This requirement also applies to non-compatible items within this class.<br>Preferred "On deck" stowage is aft.<br>Drums may be tiered 2-high by use of metal dunnage of aluminum. | When possible, and the amount of substance warrants, the loading and stowage of fuels should be supervised by a representative of the appropriate Army technical service (Ordnance Corps) or Navy Department.<br>1. Handle by hand or mechanical means using extreme care against damage to the container resulting in leakage or spillage.<br>2. Do not drop, drag, tumble, walk or otherwise subject packages or drums to shock. Drums will not be rolled.<br>3. Packages shall be stowed in the position indicated by their markings; drums and kegs shall be stowed on end with bung holes up.<br>4. Do not use chute in loading or unloading.<br>5. Observe packages or drums for leakage or spillage and for odor of aniline or alcohol in the case of aniline-furfuryl alcohol shipments. If no odor is present and no evidence of leakage is present, the shipment is assumed to be in safe working condition and the cargo can be handled by personnel wearing the usual type of leather gloves and safety shoes. No other type of protective clothing will be required; however, in this operation as well as all other operations involving aniline-furfuryl alcohol mixtures, treadle type of deluge shower and a container of approximately 5% solution of acetic acid or strong vinegar must be available.<br>6. In the event of damage to a container resulting in leakage or spillage, stop operations, clear area of all personnel, render first-aid to personnel affected and spray copious amount of water on area affected. Decontamination must be handled with a minimum delay by personnel trained in this procedure and equipped with protective clothing and self-contained breathing apparatus.<br>7. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays with fixed or removable sides are authorized.<br>8. Cargo nets without trays, skipboards, pallets or pieplates are not permitted.<br>9. Lifts of palletized units shall not be tiered except when using a sling so destined as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>10. The maximum permitted weight per draft, when handled by pallet, skipboard, tray or pieplate fitted with cargo nets or sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

*Classification, handling and stowage chart*—Continued

| Class | Description | I. C. C. marking | I. C. C. class | Hazard | Stowage | Handling |
|---|---|---|---|---|---|---|
| XI-D<br><br>Oxidizers in containers for guided missiles and rockets. | Oxidizers for use with guided missiles and rockets are non-flammable liquids; however, they are strong oxidizers and if allowed to come in contact with readily organic materials or metallic powders, may cause spontaneous combustion. They are highly toxic producing poisonous vapors and fumes and capable of producing severe burns or death if improperly handled. Fuming nitric acid vigorously attacks most metals, particularly iron and steel.<br>Includes but is not limited to:<br>Compressed gas, oxygen.<br>Hydrogen peroxide.<br>Liquid nitrogen tetroxide.<br>Liquid oxygen.<br>Mixed acid (nitric-sulfuric).<br>Red nitric acid, fuming.<br>White nitric acid, fuming. | Shipping name of item. | Cor. L. Nonf. G. Oxy. M. | The principal hazards arise from the combustibility of organic materials when in contact with acids and the toxicity of fumes and vapors produced.<br>The oxides of nitrogen, referred to as "nitrous fumes" if inhaled in appreciable quantities, may cause severe damage to respiratory and pulmonary tissues and, under certain conditions, may result in death.<br>Color of the fumes is not an index to their toxicity. *All* nitric acid fumes are dangerous.<br>Contact with the skin results in severe burns and may result in permanent scars or deformity. Contact with the eyes may cause blindness.<br>Red Fuming Nitric Acid (RFNA) is not flammable in itself and cannot be detonated, but the combustibility of all organic material is greatly increased in contact with this acid.<br>This acid is very hygroscopic (completely soluble), and its introduction *INTO* water will cause rapid evolution of heat with spattering of the acid.<br>RFNA vigorously attacks most metals, particularly iron and steel.<br>Nitric acid will react with salt water to liberate chlorine and other poisonous gases. Winterized water fire extinguishers containing salt as a freezing point depressant, should not be used to fight fires involving nitric acid. The use of large quantities of water, as a spray rather than a stream, to dilute the acid and extinguish the fire, is effective. Fire extinguishers of a suitable type should be provided wherever this acid is handled or stowed. | This class will not be stowed with any inflammable liquid fuels, metallic powders, or explosives.<br>For stowage adjacent to other dangerous articles see § 146.29-59.<br>May be stowed "On deck" and protected from direct rays of the sun and inclement weather, or may be stowed in a deep tank and such stowage shall be effectively sealed off to prevent the escape of any leakage which may take place. Pertinent parts of § 146.29-85 apply.<br>Compatibility of items within this class shall be in accordance with § 146.29-99, Chart B.<br>Must be stowed so that superstructure intervenes between it and other items that require "On deck" stowage. This requirement also applies to non-compatible items within this class.<br>Preferred "On deck" stowage is aft.<br>Drums may be tiered 2-high by use of metal dunnage of aluminum. | When possible, and the amount of substance warrants, the loading and stowage of oxidizers and acids should be supervised by a representative of the appropriate Army technical service (Chemical Corps or Ordnance Corps) or Navy Department.<br>1. Handle by hand or mechanical means using extreme care against damage to the container resulting in leakage or spillage.<br>2. Do not drop, drag, tumble, walk, or otherwise subject packages or drums to shock. Drums will not be rolled.<br>3. Packages shall be stowed in the position indicated by their markings; drums and kegs shall be stowed on end with bung holes up.<br>4. Do not use chute in loading or unloading.<br>5. Visually inspect packages or drums for evidence of spillage or leakage and for odor of nitrous dioxide fumes in the case of fuming nitric acid shipments. If no odor is detected and no fumes are visible, the shipment is assumed to be in safe working condition and the cargo can be handled by personnel wearing gloves and aprons of acid-resistant material, safety shoes and eye goggles. No other type of protective clothing will be required; however, two complete sets of acid-resistant protective clothing, including a self-contained breathing apparatus, of an approved type, must always be immediately available for emergency use. In this operation, as well as all other operations involving fuming nitric acid, treadle type of deluge showers and a container of approximately 5% solution of acetic acid or strong vinegar must be available.<br>6. In the event of damage to a container resulting in leakage, spillage or fumes, stop operations, clear area of all personnel, render first-aid to personnel affected and spray copious amount of water on area affected. Decontamination must be handled with a minimum delay by personnel trained in this procedure and equipped with approved type of protective clothing and self-contained breathing apparatus. Damaged containers will be removed only by such personnel.<br>7. Cargo handling stevedore gear may be trays, skipboards, pallets, or pieplates provided they are fitted with cargo nets or sideboards. Boxes or trays fitted with fixed or removable sides are authorized.<br>8. Cargo nets without trays, skipboards, pallets or pieplates are not permitted.<br>9. Lifts of palletized units shall not be tiered except when using a sling so designed as to prevent, by means of sideboards or netting extended upward to the uppermost height of the draft, the upper tier or tiers from shifting or falling from the draft.<br>10. The maximum permitted weight per draft, when handled by pallet, skipboard, tray, or pieplate fitted with cargo net or sideboards shall not exceed 2,400 lbs. plus 10%.<br>11. Drafts consisting of one or more palletized units shall not exceed 4,000 lbs. plus 10%.<br>12. The limiting weights noted above are for a 5-ton boom. See § 146.29-41. |

## PART 147—REGULATIONS GOVERNING USE OF DANGEROUS ARTICLES AS SHIPS' STORES AND SUPPLIES ON BOARD VESSELS

### SHIPS' STORES AND SUPPLIES OF A DANGEROUS NATURE

1. Section 147.05–100 *Table S—Classification: Ships' stores and supplies of a dangerous nature* is amended as follows:

(a) Delete the item "Liquefied petroleum gas—non-liquefied petroleum gas" in column 1 and all text pertaining thereto in columns 2 through 7 (including footnote 1 referred to in columns 4 through 7).

2. Section 147.05–100 *Table S—Classification: Ships' stores and supplies of a dangerous nature* is further amended as follows:

§ 147.05–100 *Table S—Classification: Ships' stores and supplies of a dangerous nature*

| Descriptive name of article | Characteristic properties, cautions, markings required | Label required | Required conditions for transportation | | | |
|---|---|---|---|---|---|---|
| | | | Cargo vessel | Passenger vessel | Ferry vessel, passenger or vehicle | R. R. car ferry, passenger or vehicle |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| *Fuel for heating, cooking, lighting.*<br>Alcohol, solid or fluid | | No label required. | Alcohol, solid or fluid, permitted.<br>Containers of solidified alcohol shall be properly secured on a fixed base.<br>Fluid alcohol burners where wet priming is used shall have catch pan not less than ¾" deep secured inside the frame of the stove or the metal protection under the stove flanged up ¾" to form a pan. | Alcohol, solid or fluid, permitted.<br>Containers of solidified alcohol shall be properly secured on a fixed base.<br>Fluid alcohol burners where wet priming is used shall have a catch pan not less than ¾" deep secured inside the frame of the stove or the metal protection under the stove flanged up ¾" to form a pan. | Alcohol, solid, permitted.<br>Alcohol, fluid, not permitted.<br>Containers of solidified alcohol shall be properly secured on a fixed base. | Alcohol, solid, permitted.<br>Alcohol, fluid, not permitted.<br>Containers of solidified alcohol shall be properly secured on a fixed base. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Hydrogen | *Inflammable gas.*<br>*Inflammable and explosive with about 4% to 72% in air.*<br>*Excessive quantities in an enclosed space may cause suffocation.*<br>*Lighter than air.* | Red gas | Cylinders shall conform to ICC requirements and shall be fitted with a valve protection cap.<br>Stowage: "On deck", protected from damage and the direct rays of the sun by a strong well-ventilated cage. Not more than 3 cylinders of hydrogen shall be carried as ships' stores and supplies. | Cylinders shall conform to ICC requirements and shall be fitted with a valve protection cap.<br>Stowage: "On deck", protected from damage and the direct rays of the sun by a strong well-ventilated cage. Not more than 3 cylinders of hydrogen shall be carried as ships' stores and supplies. | Not permitted. | Not permitted. |
| Liquefied or non-liquefied petroleum gas. | *Inflammable gas.*<br>*Components include propane, propylene, butane, butylene, and butadiene.*<br>*Vapors from most petroleum gases are heavier than air and will form an explosive mixture with air over varying ranges.* | Red gas | Cylinders shall conform to ICC requirements and shall be fitted with a valve protection cap.<br>Stowage: "On deck", protected from damage and the direct rays of the sun by a strong well-ventilated cage. Not more than 3 cylinders of liquefied or non-liquefied petroleum gas shall be carried as ships' stores and supplies. | Cylinders shall conform to ICC requirements and shall be fitted with a valve protection cap.<br>Stowage: "On deck", protected from damage and the direct rays of the sun by a strong well-ventilated cage. Not more than 3 cylinders of liquefied or non-liquefied petroleum gas shall be carried as ships' stores and supplies. | Not permitted. | Not permitted. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |
| Oxygen | Cylinders shall conform to ICC requirements and shall be fitted with a valve protection cap.<br>*Oxygen is a strong supporter of combustion and greatly accelerates fire. Oxygen under pressure may cause grease, oil and other readily combustible and finely divided substances to ignite.*<br>*Colorless, odorless and tasteless.*<br>*Slightly heavier than air.*<br>*Oil or other lubricants shall not be used on a valve or other fitting connecting to cylinders.* | Green gas | Stowage:<br>In a cool ventilated location selected and supervised by the chief engineer with the knowledge and approval of the master. (Protected from temperatures exceeding 100° F.)<br>Stow upright, secured in a rack, with valve protection cap in place on cylinder.<br>Cylinders shall be stowed in rack at all times, except when actually in use.<br>Quantity limitations: Cargo vessels shall not have on board as ships' stores more than 3,000 cu. ft. of oxygen at any time. | Stowage:<br>In a cool ventilated location selected and supervised by the chief engineer with the knowledge and approval of the master. (Protected from temperatures exceeding 100° F.)<br>Stow upright, secured in a rack, with valve protection cap in place on cylinder.<br>Cylinders shall be stowed in rack at all times, except when actually in use.<br>Quantity limitations:<br>Passenger vessels navigating inland or coastwise waters shall not have on board as ships' stores more than 1,500 cu. ft. of oxygen at any time.<br>Passenger vessels going foreign or intercoastal shall not have on board more than 3,000 cu. ft. of oxygen at any time. | Not permitted. | Stowage:<br>In a cool ventilated location selected and supervised by the chief engineer with the knowledge and approval of the master. (Protected from temperatures exceeding 100° F.)<br>Stow upright, secured in a rack, with valve protection cap in place on cylinder.<br>Quantity limitations: R. R. car ferries shall not have on board as ships' stores more than 1,500 cu. ft. of oxygen at any time. |
| • • • | • • • | • • • | • • • | • • • | • • • | • • • |

Subchapter T—Small Passenger Vessels (Not More Than 65 Feet in Length)

PART 175—GENERAL PROVISIONS

SUBPART 175.05—APPLICATION

Section 175.05–1 (a) is amended by revising Table 175.05–1 (a) to read as follows:

§ 175.05–1 *Vessels subject to the requirements of this subchapter.* (a) * * *

TABLE 175.05–1 (a)

| Method of propulsion | Size or other limitations [1] | Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations [1] | | | |
|---|---|---|---|---|---|
| | | Vessels inspected and certificated under Subchapter D—Tank Vessels [2] | Vessels inspected and certificated under either Subchapter H—Passenger Vessels [3] [4] or Subchapter T—Small Passenger Vessels [3] [4] | Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels [3] [5] | Vessels subject to provisions of Subchapter C—Uninspected Vessels [3] [6] |
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Steam | Vessels not over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | All tugboats and towboats. | All vessels except those covered by columns 3, 4, and 5.[8] |
| | Vessels over 65 feet in length. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels of not over 15 gross tons which carry more than 6 passengers.[7]<br>3. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew.<br>c. Towing and fishing vessels, in other than ocean and coastwise service, issued a permit to carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel. | All vessels except those covered by columns 3 and 4. | None. |
| Motor | Vessels of not over 15 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | All vessels except those covered by columns 3, 4, and 5. |
| | Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All vessels not over 65 feet in length which carry more than 6 passengers.[7]<br>3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels carrying freight for hire except those covered by columns 3 and 4. | All vessels except those covered by columns 3, 4, and 5. |
| | Seagoing motor vessels of 300 gross tons and over. | All vessels carrying combustible or inflammable liquid cargo in bulk.[9] | 1. All vessels carrying more than 12 passengers on an international voyage, except yachts.<br>2. All other vessels carrying passengers, except:<br>a. Yachts.<br>b. Documented cargo vessels issued a permit to carry not more than 16 persons in addition to the crew. | All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry. | All vessels except those covered by columns 3, 4, and 5. |
| Sail | Vessels not over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | None. |
| | Vessels over 700 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | None, except if required by 46 CFR Part 146.[9] | None. |
| Non-self-propelled | Vessels not over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying more than 6 passengers.[7] | None, except if required by 46 CFR Part 146.[9] | All barges carrying passengers except those covered by column 4. |
| | Vessels over 100 gross tons. | All vessels carrying combustible or inflammable liquid cargo in bulk. | All vessels carrying passengers for hire. | All seagoing barges and inland barges when required by 46 CFR Part 146.[9] except those covered by columns 3 and 4. | All barges carrying passengers except those covered by column 4. |

[1] Where length is used in this table it means the length measured from end to end over the deck, excluding sheer.

[2] Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Explosives or Other Dangerous Articles or Substances, and Combustible Liquids on Board Vessels) of this chapter may also be applicable under certain conditions.

[3] Public nautical school ships, other than vessels of the Navy and Coast Guard shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical school ships, as defined by 46 U. S. C. 1331, shall meet the requirements of Subchapter H (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

[4] Subchapter H (Passenger Vessels) of this chapter covers only those vessels over 65 feet in length. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of not over 65 feet in length.

[5] Any vessel subject to R. S. 4472, as amended (46 U. S. C. 170), shall be inspected and certificated as a condition precedent to being permitted to carry such bulk cargoes when so specifically required by 46 CFR Part 146.

[6] Any vessel on an international voyage is subject to the requirements of the International Convention for the Safety of Life at Sea, 1948.

[7] The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (sec. 1, 70 Stat. 151; 46 U. S. C. 390).

[8] Boilers and machinery are subject to examination on vessels over 40 feet in length.

[9] Vessels covered by Subchapters H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of inflammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the inflammable or combustible liquid cargo shall meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

(Sec. 3, 70 Stat. 152, 153; 46 U. S. C. 390b)

Dated: June 25, 1958.

I. E. ESKRIDGE,
*Rear Admiral, U. S. Coast Guard,*
*Acting Commandant.*

[F. R. Doc. 58–4957; Filed, June 27, 1958; 8:52 a. m.]